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# DILEMMAS

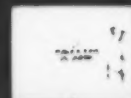
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When technology transforms motherhood

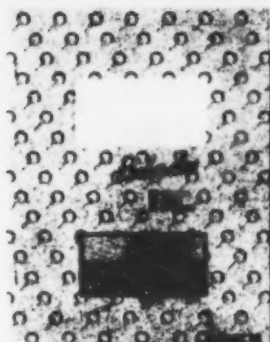


• Infertility: the will, but no way • Artificial insemination: more complex than it seems • In vitro fertilization: the test-tube relay • Surrogate mother: for the duration of the pregnancy • Prenatal diagnosis: tell me what you are, I'll tell you what you'll become of you • The dilemmas of new reproductive technologies: keeping on top of the situation.

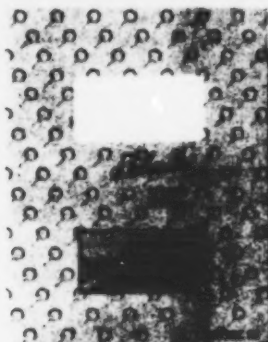
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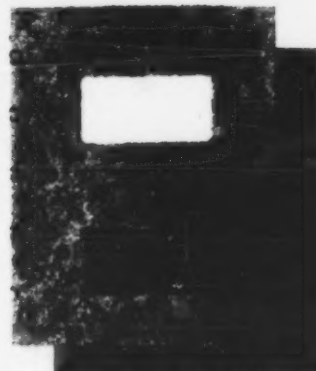
## Family portrait



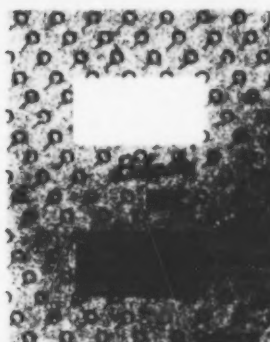
*Questions soulevées dans la littérature générale* by Fernande Rousseau and Pierre H. Desrosiers



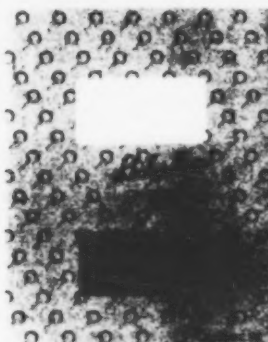
*Analyses et questionnements féministes* by Lise Dunnigan and Louise Bernard



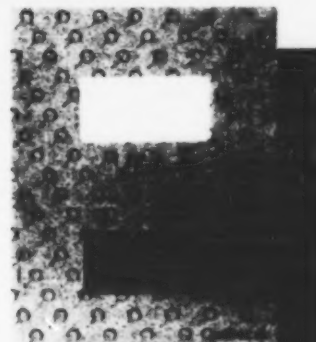
*Pratiques cliniques et expérimentales au Québec* by André Jean



*Etude des principales législations et recommandations* by Marie Choquette



*Portrait statistique des couples qui ont recours à l'assistance médicale pour résoudre un problème d'infertilité* by Céline Perron



*Les enfants que je veux... si je peux...* by Françoise-Romaine Ouellette

750 pages, six documents on new reproductive technologies: one topic explored from different angles. *Dilemmas* is a synthesis of this research carried out by the Conseil du statut de la femme. For additional information, documents may be consulted at the Documentation Centre of the CSF or at any regional office of Consult-Action.

### ***Dilemmas***

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# Crumbling motherhood



Francine C. McKenzie, president of the Conseil du statut de la femme (CSF).

**T**he scientific child is born and the media herald the coming. He is the shiniest product of high technology. Not for him the primitive dependence on sexual intercourse. He has bypassed nature, leapfrogged ethics and law. And he has lent respectability to the "logic of desire" — ask and it will be given. A new page has been turned in the history of humanity: henceforth the human being can intervene in his own origins, deliberately blur his identity, indeed modify himself. The potential is there. For human wisdom, it is five minutes to midnight.

Science responds to our doubts with the word performance. Technique claims it fulfills a need. Need that has become desire, desire that has turned into obsession: we must have a child **regardless of the cost. Right now.** And the child must be **perfect**. We promise there won't be any traumatic effects.

Why is infertility no longer tolerated? Is it because of the decline in the birth rate? Having become a rarity, the child must make it happen. Is it part of our productivist approach? Meaning the need to produce more ought to include that of reproducing ourselves. I have a child, hence I am. Or is it part of our conformist way of looking at things (I'm typical because I have two children)?

How can one explain that **only 5% of couples are actually sterile, but 20% consult specialist about their sterility?**<sup>1</sup> That one third of the women surveyed in our research on those resorting to in vitro fertilization (IVF) already have a child?

How can we blindly accept that failure to conceive after only a year of sexual relations is deemed sufficient to qualify for treatment of infertility? And even less than a year if the woman can provide graphs of her body temperature variations. Perhaps the fear of pregnancy during their youth and insistence on contraception led women to assume it was easy to conceive<sup>2</sup>.

Is technique responding to a couple's drama or to its impatience? The 12-month period of non-conception is all too brief. We ought to allow nature to take its course, acting instead where it is breaking down, such as in the case of young people who are losing their capacity to reproduce because of the epidemic of sexually-transmitted diseases. Unless we want Québec to become a procreation laboratory. Nor can it be overemphasized that medically-assisted reproduction practices are **not a cure but a palliative. Infertility is not being treated.** It is being circumvented by achieving conception otherwise.

Let's level with the women tempted to venture into the mine field of in vitro fertilization. Let's tell them the truth about the risks involved, about the real chances of success. In an article in *Les Temps modernes*<sup>3</sup>, "Pourquoi faire simple quand on peut faire compliqué?" (Why simplify matters when they can be complicated?), Joachim Marcus-Stieff demystifies the question, raising ethical considerations regarding the information disseminated about such techniques. He lists six methods used to inflate the IVF success rate and 12 different ways to calculate it. He concludes that the probability of giving birth to a living child may not be 20% as practitioners claim, not even 10 or 15% as is often reported (the

figure indicates the performance rate of better clinics, not an average), but more likely in the neighborhood of 5%. Various authors suggest that so-called infertile couples having sexual relations are likely to experience the same rate of success as those who turn to IVF.

As for risks inherent in IVF, it need only be noted that the rate of extra-uterine pregnancies is higher than in the case of natural pregnancy, that reimplantation of several embryos in the uterus results in a multiple birth rate of 12 to 30% as opposed to 10% for natural fertilization, that 27% of births are premature, that 33% of the children are born hypotrophic, that perinatal mortality is higher, that flexed breech deliveries are 15 times more frequent and that one out of two children conceived in vitro must be delivered by caesarean<sup>4</sup>. Not to mention the side effects of drugs and hormones used for hormonal stimulation, the risks involved in extraction of ovules, the dangers of general anesthesia required for embryo reimplantation and, finally, the patience women must have and the difficulties the couple will experience.

In the chess game of test-tube babies, the performance is hardly up to Karpov's standards. Knowing that wonderment can give way to horror helps one gain a better perspective on scientific boastfulness.

There are dark clouds on the horizon: sex selection, eugenics, genetic manipulation, egg fusion, feminine self-insemination, cloning, artificial creation of twins, banks of substitute material, male pregnancy, human gestation in animals, development of human-animal chimera<sup>5</sup> and unscrupulous application of veterinary discoveries to human reproduction ends, as Jacques Dufresne points out in *La reproduction humaine industrialisée*.

The tailored-to-measure baby already exists: on August 9, 1986, the

*London Daily Express* reported the birth of Justin Spencer, a made-to-order male. Dr. Jack Glatf of London let it be known his clinic is being swamped with requests for boys. What's more, sex selection can be independent of artificial fertilization: "I am absolutely certain that sex choice will soon be widely available in this country and that it will not be restricted to couples having test-tube babies!"

Prenatal diagnosis also makes sex selection possible. A Danish woman recently demanded an abortion when she learned she was carrying a girl. Since Denmark provides abortion on demand up to the 12th week of pregnancy, doctors there are now forbidden to disclose the sex of a fetus less than 12 weeks old.

So means do exist to slow down the transition from the naturally-made to the prefab baby, to throw a monkey-wrench into the "medicine of desire" — designer medicine — and the runaway machine of progress.

An IVF practitioner has the gall to ask why we presume the matter concerns us. Well, doctor, it does affect the mother and the child. We believe the technique ought to be used with great caution, that a notion of limits should be introduced to safeguard the inherent sense of being human. Our research takes a **humanist** perspective. Not because we are nostalgic and reject progress (after all, women do make use of technique in contraception and abortion) but because women must have free choice in the matter. In that way, we can say "no" to the technology of the possible and opt instead for other ways that reconcile us with nature. The research also takes a **feminist** perspective. We must rid ourselves of the double polarization that has dominated recent feminist thought on maternity: on the one hand, glorification; on the other, rejection.

The abortion debate as well as the preoccupation with birth control that

has become an obsession for some<sup>6</sup> may have created the impression that women reject maternity.

As Hubert Doucel has written<sup>7</sup>: "For sexuality without reproduction, technology has now substituted reproduction without sexuality."

Similarly, as a substitute for meticulous choice of the right moment to have a child, the medical profession proposes induced childbirth. Now more and more babies are born on weekdays and during normal working hours... Surely wagering on nature is something that concerns women and couples as much as it does medicine. We think the medical profession ought to change its tune, that which has traditionally implied domination of women patients. Along with us, it should strive to curb the "logic of desire".

It's also a matter that concerns children, fast becoming products. And that puts the focus on the crucial question of anonymity, the question basic to artificial insemination involving a donor and also to so-called combined artificial insemination, widespread in the United States, the practice whereby donor sperm is mixed with that of the father to create a doubt. This is done after having carefully chosen the sperm of a man who resembles the future social father and after having exacted a promise from the parents to hide the truth from the child. Why concoct and organize a deliberate lie regarding the identity of a human being? Have we forgotten that loss of identity can lead to insanity, that the child who discovers the truth could be ruined for life.

"The lifting of anonymity has the effect of a bomb," a French magistrate said recently. Indeed it has. Up to the present, only Sweden has had the courage to legislate in this area by passing a law on artificial insemination. The CSF believes the Québec Government should do likewise.

Would that put an end to the use

of donors? The Swedish Minister of Immigration and Women's rights, Ms Gradin, points out that sperm banks in Sweden are in no danger of running dry. The new law, however, has reduced the use of donors by 30%. Donors have changed, too, since those who now offer their sperm know they may be identified one day, although they are protected against possible legal recourse with respect to obligations of paternity.

That is the path we ought to envisage in Québec. We ought to recognize the right of every child who is technically conceived or subject to future adoption to know the identity of this biological father and mother. He should also have access to such information in a State register so that he is in a position to exercise that right. That would end the use of unidentified sperm, "made in the USA" or elsewhere. The rule would apply to future adoptions, to AID and IVF, to frozen embryos and to substitute motherhood.

As to the danger of in-breeding, a strict ceiling ought to be set on use of sperm from a given donor and limits clearly defined if we are to avoid the scenario of Dr. Skroda<sup>6</sup>.

Legislation is required with respect to frozen embryos, to banks of genetic materials and embryos and to surrogate mother agencies. That is the way to prevent any form of commercialization.

As to the complex problem of surrogate mothers which has received so much attention in the media, we are inclined to share the view of Jurist Catherine Labrusse-Riou who maintains it would be an attack on the social consensus to revamp common law merely to deal with a few problem cases. To legislate in this area, indeed, could violate the fundamental principle that persons may not be the object of contract, proprietorship or barter<sup>9</sup>.

Since it is manifest that law flows

from community ethics, it is urgent we provide an opportunity for that ethic to surface. That, in turn, means discussion, a debate based on rigorous fact.

By publishing *Dilemmas*, the CSF hopes to further stimulate the debate it has launched in Québec. It also hopes to establish the notion of limit as a key parameter in the development of new reproductive technologies. At the same time, it seeks to challenge notions regarding the ineluctable nature of "progress", to safeguard motherhood and to preserve society from what Elisabeth Badinter, in a Radio-Québec interview, described as "the greatest denial of nature (male pregnancy)".

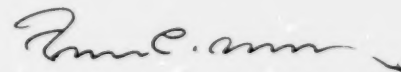
Free choice, yes. But within the limits of human nature and social conscience, limits that take into account the staggering paradoxes, the dilemmas of mind-boggling proportions and the explosion of our system of values that cloud the issues:

- overpopulation in the South, declining birth rate in the North;
- humanization of childbirth, fore, crumbling motherhood, aft;
- voluntary and premature sterility, then second thoughts and recourse to IVF;
- abortion at street-level, child manufacturing one floor up;
- desperate efforts to discover one's origins and simultaneous attempts to deliberately conceal the origins of artificially-conceived children;
- on the one hand, Pro-Life activist, on the other, supernumerary embryos whose fate is uncertain;
- recognition of paternity in the case of the natural child, deliberate creation of monoparental families (single women resorting to AID or IVF);
- the increasing emancipation of women and, on the horizon, the possibility of "gynocide" (via sex selection);

- impressive charters of human rights alongside biology that can modify the human being and erase the identity so basic to that same being

Reading *Dilemmas* could inspire you to add to the list.

What's there to lose? What's there to gain in the procreation sweepstakes? Judge for yourself. What is certain is that we can't afford to avoid the debate any more than we can seek refuge in ambient pluralism. Human reproduction is too important a matter to be left to technicians alone. In other words, we'll end up with the ethics we deserve.



Francine C. McKenzie  
President

- 1 The question is raised by Bernard Fonty, a French obstetrician and gynecologist, in *Origines. D'où viens-tu?*, Stock, 1985, p. 171 (*Les cahiers du nouveau-né*, No 7).
- 2 AFP article, *La Presse*, October 17, 1986.
- 3 *Les Temps modernes*, September 1986, No 482.
- 4 *Idem*, pp. 8-9.
- 5 *Le Monde*, September 11, 1986. "Le non de professeur Testart".
- 6 In the sense indicated by Betty Friedan, in *Femmes: le second souffle*, Paris, Hachette, 1982, p. 318.
- 7 Article in the magazine *Femmes*, October 1985, Vol. 11, No 5.
- 8 The character Kundera (*La valse aux adieux*), who inseminates all of the women of the city with his own sperm.
- 9 *Des motifs d'espérer? La procréation artificielle*, p. 148.



...to have a child.  
...as a woman,  
...for continuity.  
...want to strengthen  
...relationship as a couple.  
The desire to have a child is there,  
deep-rooted, pervasive,  
but elusive.

For various reasons,  
like so many other couples,  
they find the flesh  
and perhaps even the spirit  
won't cooperate.

At least for now,  
maybe forever.

#### **Infertility?**

One has to be certain, discover why,  
endeavor to overcome it.

That means taking steps  
that are both personal and medical,  
constraining and exacting,  
steps that, just perhaps,  
may lead to achievement of fertility.

## The will... but no way

**Infertility is hard to live with, hard to understand, hard to deal with. Identified with women more than men, hardly a stranger to sexual behavior and lifestyles, subject to a battery of tests and hormonal treatment, infertility is perceived as an obstacle that must be overcome regardless of cost.**

### When the dream is unfulfilled

There are 32 of them, varying in age from 21 to 39. Most are married and gainfully employed. Most live in the Montréal and Québec City areas.

Interviewed in the course of a research project, they are asked why they want a child. They reply that they consider motherhood essential to their fulfillment as women. Motherhood is seen as the most rewarding of all forms of self-achievement. "Having children," says one of them, "is sort of a social accomplishment."

For many of these women, the desire to have a child stems from a wish for pregnancy, the physiological symbol of femininity. For others, satisfaction of the husband's desire to have a child may become a personal priority; in such cases, no persuasion is needed.

The notion of maternity is a natural part of the marital relationship and women have no difficulty accepting it since it is coherent with their own desire.

Some regard the arrival of a child as

a means of strengthening the emotional bond with their spouse. Others view it as an opportunity to transform the couple into a family.

The child assures continuity. Through the child, values are transmitted and the name of the father or the mother or both perpetuated. The child is someone to love and be loved by.

But the reasons advanced in the survey are not the only ones that make women want children. Nor can they be applied in a general way and without distinction to all women. Elsewhere and in different circumstances, women and couples are likely to express their desire in other ways.

Yet the deep-rooted motivations defined by Québec women largely coincide with feminist analysis of the social and cultural context that surrounds maternity: the close association with the notion of femininity; the intrinsic value of the female with the notion of femininity; the intrinsic value of the female body that fulfillment of its sexual and reproductive functions implies; the importance of the genetic link with one's descendants. Some women authors suggest the desire to have a child has acquired new significance in the present economic context. The child is increasingly perceived as a consumer product whose acquisition can be planned, programmed to suit parental expectations. The child thus becomes a success symbol, rendered precious by the likelihood couples will have only one.

## The will... but no way

Like hundreds of Québec women, the 32 in the survey wanted to have a child or even two, but were unable to do so. They saw it as a personal failure, a defeat. Many thought of themselves as active, determined, persevering — women who roll up their sleeves and get things done. They resented the feeling of impotence that infertility inspired. Others, on the contrary, wanted to become pregnant to prove they could be "successful" at something.

Infertility suggests failure on the part of one's body. It implies failure to enrich one's life, to create a family, to ensure continuity, to enjoy an affective bond with a child.

It also inspires a powerful guilt complex. Use of contraception may be identified as the cause. Or the woman may feel her fear of child-bearing is responsible. Or, as so many claim, that she thinks about it too much. Or too little. It may be a feeling of guilt about the suffering caused to one's spouse, even though he may be the one who's infertile.

Whatever the reason, these women finally decided to undertake and pursue the necessary steps to regain fertility. The survey indicates all frequent specialized clinics where they have been treated for periods ranging from a month to 12 years. Thirteen of them have been seeking help for four years or more. As one put it, "Going to a fertility clinic may not be ideal, but waiting there helplessly is hardly more ideal." ■

### Involuntary infertility, the one that's hard to take

Some women and some men deliberately choose infertility by undergoing ligatures and vasectomies.

However, as sterility indicates, infertility isn't always a matter of choice. In such cases, hope seems to knock at a door that is tightly locked. Either the woman or the man lacks the necessary reproductive cells and is unable to conceive on his or her own.

For certain cases of infertility, there's a ray of hope: when only one of the partners is infertile, the situation can be recti-

fied if the cause of the incapacity is identified and treated.

Doctors define infertility as failure to achieve pregnancy after 12 months of sexual intercourse. The definition is used to establish that approximately 15% of couples within the reproductive age group have fertility problems.

The definition does not cover the actual capacity to conceive, but rather what is regarded as the "normal" period in which conception should occur. In Europe, the period generally accepted is two years. In fact, demographic studies indicate pregnancy does occur within a period exceeding a year in the case of 20% of couples who wish to conceive. The probability is even higher in the case of women who previously resorted to anovulants.\*

Many causes account for infertility.

\* ROCHON, Madeleine, *Stérilité et problèmes de fertilité*, Études de santé, Ministère de la Santé et des Services sociaux, January, 1986, 16 pages (unpublished text).



Marc Laporte, ministère des Communications

*Some women suffering from infertility seem to regard it as their responsibility to undergo investigational and medical treatment.*

#### In women

Infertility factors are more prevalent in women (60%):

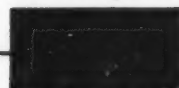
- ovulatory factors: anovulation, glandular troubles (thyroidal, hypophysis, adrenalitis);
- tubular factors: absence or obstruction of one or both tubes accounts for 30 to 40% of infertility cases. Sexually-transmitted diseases are particularly damaging: gonorrhea, chlamydia causing Fallopian salpingitis. Endometriosis is another cause: the presence outside the uterus of endometrium, the mucus from the inside wall;
- uterine factors: anomalies of the uterus;
- cervical factors: inflammation of the cervix; rejection of spermatozoa by the cervical phlegm (the secretion produced by the cervix).

#### In men

Forty per cent of infertility cases are attributed to men. Causes are:

- diseases of a genetic nature;
- testicular diseases;
- troubles of the endocrine glands;
- varicocele: dilation of spermatic cord vessels that impedes production and mobility of spermatozoa;
- ejaculation difficulties or impotence, frequently due to environmental problems or drugs;
- regressive ejaculation: when the sperm is emitted into the bladder instead of outward;
- absence or blockage of vas deferens due to venereal infection. ■

#### Knowing why



The couple consulting a fertility clinic must undergo different tests designed to pinpoint the biological factors that prevent conception. Such tests are known as the investigational phase. The couple must also provide the doctor with all relevant facts: background, diseases, personal habits, work environment, sex life.

Complexity of the tests varies with men and women.

The man must furnish a sample of his sperm so that the number, the mobility and the quality of the spermatozoa can be checked in a laboratory.

The woman must submit to more numerous and more exacting tests:

- temperature curve: basal temperature must be recorded each morning and a curve established for each menstrual cycle. The curve makes it possible to determine if the cycle is long enough, if ovulation is normal and when it occurs. Sexual intercourse must take place on days appropriate for fertilization. A key control tool, the temperature curve also serves to fix appointments at the clinic

for tests that must occur at a specific point during the cycle;

- Radiographies of the uterus and Fallopian tubes: injection of a coloured liquid makes it possible to determine if circulation is normal in the tubes through which ovule and spermatozoa must pass. The test is known as hysterosalpingograms.
- uterotubal insufflation: a stethoscope is used to ascertain if air circulates freely in the Fallopian tubes, thus detecting possible blockage;
- post-coital test: several hours after sexual intercourse, cervical viscosity is checked to evaluate the survival rate of spermatozoa and detect possible presence of antibodies;
- an endometrial swab (from the inside wall of the uterus) is analyzed to determine if a fertilized egg is likely to implant itself. The procedure is known as endometrial biopsy;
- a laparoscopy, which requires general anesthesia, involves insertion in the abdomen of a long tube with a fibre-optic telescope for examination of the uterus, the Fallopian tubes and the ovaries and diagnosis of possible endometriosis. ■

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### The treatment: on the wings of faith and hope

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Either by chance or as a result of the stimulation induced by certain examinations, some couples achieve the desired pregnancy during the investigational phase. For the others who decide to go on, the treatment will vary, depending on the cause of infertility detected in either partner.

### For the men, antibiotics and surgery

Sometimes it is impossible to identify the causes of infertility in men; in other cases, no medical treatment is available. Such individuals make up 50% of men who, in the light of present knowledge, have almost no hope of becoming fertile again.

Antibiotics will be prescribed when venereal disease is identified as the source of the problem. Surgery may be suggested in other cases to correct varicocele (success rate: 50%) or to unblock the vas deferens.

### For women, hormones and surgery

Hormonal treatment can resolve or reduce certain causes of infertility in women, such as anovulation and endometriosis. The five types of hormonal treatment designed to stimulate ovulation necessitate methodical control. Resumption of ovulation is frequent and there is a possibility of multiple pregnancy.

Surgery of the Fallopian tubes is designed to increase permeability reduced by ligature, inflammation or endometriosis. (The success rate varies from 10 to 90%, depending on the case and the technique used). Surgery is also used to correct malformation of the uterus. ■

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### "They don't call us patients for nothing"

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She has undergone 17 endometrial biopsies in eight years. So she knows what it's all about when she refers to the pain involved (in tubal insufflation and laparoscopy) and to the patience required by the women.

Not all women have chalked up such records, but many do undergo certain tests more than once. That means being available. "I'm always in the doctor's office,"

said one of them. To be available, some quit a full-time job and take on part-time work; others forego sick leave to compensate for the time spent in clinics.

### Keep the thermometer handy

When the thermometer is the first thing you see when you wake up every morning for six months, a year, even two, you soon think of chucking it out the window.

When you must have sexual relations whether or not you're in the mood, satisfaction tends to take a back seat. At the clinic, it will be noted that you made love and at what time you did so. It will also be decided if you did so efficiently. Result: stripped of all intimacy, sexual relations become trite.

It's just like the temperature-taking. You have to motivate yourself day after day.

### The highs and lows of wanting a child

The testimony of the 32 women indicates that the desire to have a child is stable or more intense at the start of the testing period, when treatment actually begins and even throughout the process if treatment lasts only a limited time.

On the other hand, desire recedes, sometimes giving way to second thoughts, when the diagnosis is pronounced, during periods of routine or prolonged examination or treatment, or following a particularly painful operation.



The thermometer and a temperature graph, there to greet you every morning during the investigational phase.

Whether desire increases or diminishes, the treatment becomes a part of daily life. How can one forget it with all those appointments, the programmed lovemaking, the nausea and headaches produced by the hormones? With the stress that precedes the operation and the pain that follows? Not to mention moments of discouragement one's partner may not always understand. Yet, in spite of it all, hope persists.

## The changes in social life and professional life

Women who participated in the CSF survey agree that the problem of infertility substantially alters one's social life.

Some women isolate themselves. Others avoid visiting friends who have young children, pregnant women, a brother-in-law with a warped sense of humor, a mother-in-law who is either over-protective or gossipy.

Some women do the opposite. They endeavor to strengthen ties with in-laws, a sister or others whose help they find comforting.

In a word, the survey indicates social relationships are called into question during the infertility crisis. Friendships can be broken up or efforts made to preserve or strengthen them or perhaps to establish new ones.

The professional lives of infertile women also undergo change: renewed interest in a career as a means of self-achievement may appear as a fallback solution to infertility. Studies or jobs may be abandoned or employment changed and schedules reorganized.

Life is never quite the same when infertility gets in the way. ■

## The situation in Québec

Québec has a total of 11 infertility clinics (A), nine birth control clinics in hospitals (B) and 26 in CLSCs (C) which also offer infertility services. Following are the resources available according to region:

### Bas-Saint-Laurent—Gaspésie

- B- Centre hospitalier Saint-Joseph, Rimouski
- Hôtel-Dieu, Gaspé
- Centre de santé de l'Archipel, Îles-de-la-Madeleine
- C- Centre local de services communautaires (CLSC) des Chaleurs, Paspébiac

CLSC de la Saline, Chandler  
CLSC de Matane, Matane

### Saguenay—Lac-St-Jean

- A- Hôpital de Chicoutimi
- C- CLSC Saguenay-Nord, Chicoutimi-Nord
- CLSC des Prés-Bleus, Saint-Félicien
- CLSC des Grands-Bois, Chapais

### Québec

- A- Centre hospitalier de l'Université Laval, Québec
- Hôpital Saint-François d'Assise, Québec
- C- CLSC Saint-Marc, Saint-Marc-des-Carrières
- CLSC Basse-Ville, Québec
- CLSC des Frontières, Saint-Eleuthère district, Pohénégamook

### Mauricie—Bois-Francs

- B- Centre hospitalier Sainte-Marie, Trois-Rivières
- Centre hospitalier régional de la Mauricie, Shawinigan

### Estrie

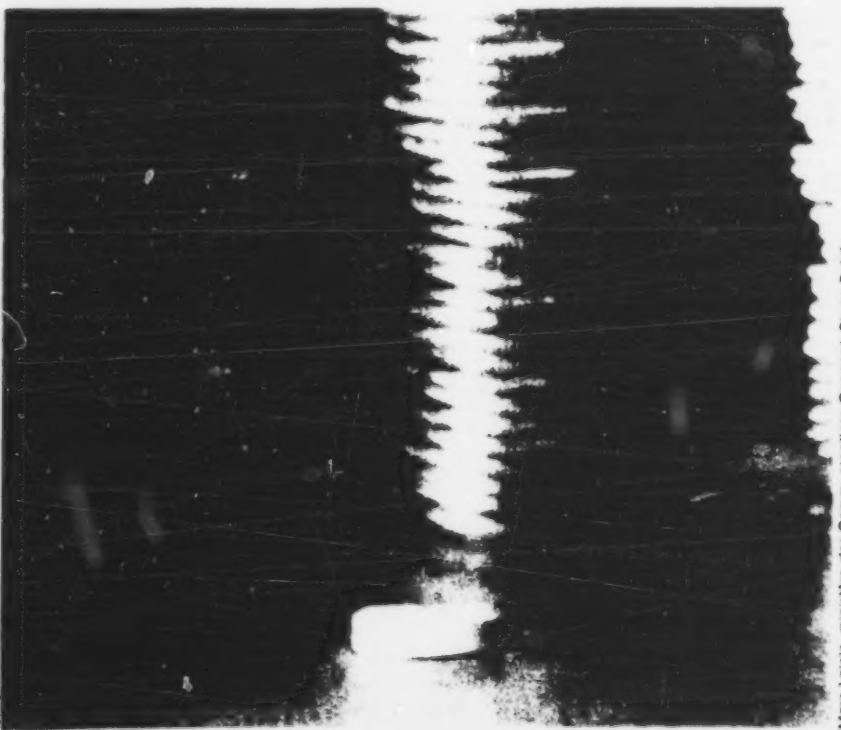
- A- Centre hospitalier de l'Université de Sherbrooke, Sherbrooke

### Montréal

- A- Hôpital Saint-Luc, Montréal
- Hôpital Sainte-Justine, Montréal
- Hôpital Maisonneuve-Rosemont, Montréal
- Royal Victoria Hospital, Montréal
- Hôpital Sacré-Coeur, Montréal
- Hôpital Notre-Dame, Montréal
- Queen Elizabeth Hospital, Montréal
- B- Hôpital général Lasalle, Montréal
- Cité de la Santé, Laval
- C- CLSC Montréal-Nord, Montréal
- CLSC Centre-ville, Montréal
- CLSC du Marigot, Pont-Viau
- CLSC Métro, Montréal
- CLSC Pierrefonds, Pierrefonds
- CLSC Sainte-Rose, Laval
- CLSC Lamater, Terrebonne
- CLSC Sainte-Thérèse, Sainte-Thérèse
- CLSC Saint-Hubert, Saint-Hubert
- CLSC Richelieu, Richelieu
- CLSC Longueuil-Est, Longueuil

### Outaouais

- C- CLSC de Hull, Hull
- CLSC des Draveurs, Pointe-Gatineau
- CLSC Petite-Nation, Saint-André
- Avellan
- CLSC Vallée de la Lièvre, Buckingham
- CLSC La Désert, Maniwaki



Marc Lajoie, ministère des Communications Concept Diane Dubé

The RAMQ pays for diagnostic and surgical acts related to infertility, but the infertile woman must assume the cost of prescribed hormonal treatment.

### Abitibi-Témiscamingue

B- Centre hospitalier Saint-Sauveur, Val d'Or  
Centre hospitalier Rouyn-Noranda, Rouyn

### Côte-Nord

B- Hôpital de Sept-Îles  
C- CLSC Basse Côte-Nord, Blanc Sablon

### Services available

Infertility clinics generally have the personnel and the equipment needed for all tests designed to identify the cause of infertility and to provide the various types of treatment.

Birth control clinics in hospitals offer basic examinations and certain types of treatment: hormones, antibiotherapy, homologous insemination (with the sperm of the spouse). When surgery is required, men are directed to the urology department, women to the gynecology and obstetrics department.

CLSC services are limited to information and physical examination. Treatment then is carried out in an infertility clinic.

### Diagnostic acts

In 1981, the Régie de l'assurance-maladie du Québec (RAMQ) recorded many thousands of diagnostic acts related to infertility:

- 5 341 hysterosalpingograms<sup>1</sup>
- 12 144 laparoscopies<sup>2</sup>
- 9 859 endometrial biopsies<sup>3</sup>
- 6 753 post-coital tests<sup>4</sup>
- 5 130 spermograms

### Surgical acts

In the year 1983-84, 890 men and 1 807 women afflicted with infertility underwent different surgical procedures in Québec. In both cases, the majority of operations involved persons ranging from 25 to 34.

Costs of surgery are assumed entirely by the Government. The Régie de l'assurance-maladie paid \$600 000 in medical fees in 1983-84. Women accounted for 75% of such costs.

### Hormonal therapy

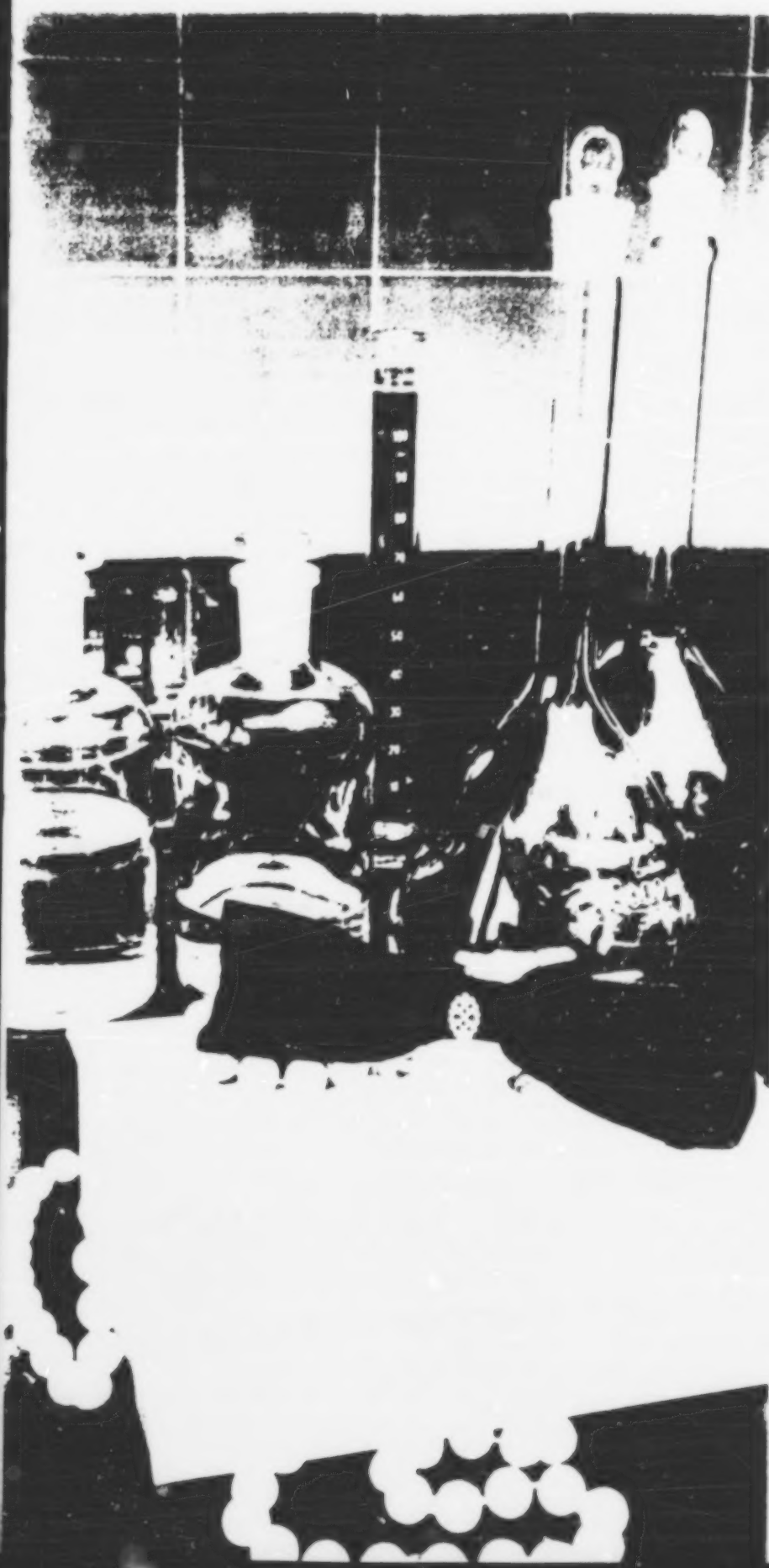
A prescription is required for hormonal treatment. The woman seeking such treatment assumes the cost. Treatment with clomiphene, the least expensive hormone, costs \$25 to \$125 per cycle. It may be required for three or four cycles. ■

- 1 Although hysterosalpingograms are used to diagnose other health problems as well, cases of infertility are believed to account for their use 90% of the time.
- 2 Laparoscopy also is used in diagnosis of other pathologies.
- 3 Endometrial biopsies are practised both on women suffering from infertility or experiencing menopause.
- 4 The post-coital test is used only in cases related to problems of fertility. A couple may have to undergo the test several times.



Marc Lajoie, ministère des Communications Concept/ Diane Dubé

"In the final analysis, I want a child because I want to experience pregnancy."



**E**xaminations,  
surgery and hormones,  
hope... then disappointment.  
It's a long road  
that leads to the child.  
How far should a couple go  
when unable  
to achieve the objective  
on its own, naturally?  
Science has a solution:  
for the ovule and the sperm,  
a new sort of blind date,  
a high-tech rendez-vous  
in a glass décor  
where the anonymous father  
or a temporary female guest  
can be on hand  
for the birth  
of the desired child.  
What if there's no child?  
Well, you can say  
you tried to the bitter end.  
At no little cost  
to your heart  
and your body.

## Artificial insemination, more complex than it seems

**T**echnically speaking, artificial insemination is simple, whether the husband's sperm or that of a donor is used. But a closer look at the technique raises a number of questions.

### When it's due

#### to him

Artificial insemination, the method used to offset male infertility, calls for the deposit of good-quality sperm in a woman during her fertile period. In Québec, only doctors are allowed to practise it.

The husband's sperm can be used if, for one reason or another, his spermatozoa fail to reach the egg in the course of sexual relations. It may be there are insufficient spermatozoa or they lack the required mobility. The malformation count may be too high. Or it may be due to precocious ejaculation or poor volume, to anatomical or congenital anomalies. Or the man may be impotent. In such cases, either through masturbation or withdrawal from the urine (in regressive ejaculation), a sufficient quantity of spermatozoa is collected and deposited in the cervix or in the uterus itself. Artificial insemination with the husband's sperm or that of a donor apparently produces no side effects.

### Recourse to a donor

If the husband is sterile or suffers from a congenital disease likely to be transmitted to the child, the couple may have recourse to a third person who donates his sperm for insemination.

Given the widespread impression that fertility symbolizes virility, recourse to a donor may present problems for the spouse. It's a consolation to know, however, the child will have a genetic link with the mother ("We're better off having one

that has your half rather than a complete stranger") and may resemble the social father. In fact, when circumstances permit, efforts are made to find a donor with similar physical characteristics.

### Portrait of a donor

The donor is usually rigorously selected by the doctor. Most donors are recruited among medical students or the staff of health establishments. A donor must meet a number of medical requirements: a genetic history without blemish, absence of venereal disease, etc. He must also undergo psychological evaluation, furnish all available information on his state of health. Participation is on a voluntary basis and he can withdraw from the program whenever he chooses. His expenses are reimbursed when his services are required. ■

### For? Against?

#### Yes, but...

Some favor artificial insemination with a donor because it allows the couple to have a child biologically related to the woman, because the husband's consent is regarded as evidence of his love, because the procedure is simple and the probability of success high (60 to 90% in the six consecutive cycles when fresh sperm is used), because the experience is said to strengthen the couple's relationship.

Arguments against artificial insemination are numerous, too: third-person involvement may jeopardize a supposedly exclusive relationship; absence of a biological link with the husband; the donor's anonymity, perceived as his refusal to accept parental responsibility and a violation of the rights of the child conceived with his sperm; finally, subordination of the child's interest to the parents' wish to have a child.

Artificial insemination with a donor (AID) has been the subject of studies, analyses and recommendations by specialists and many committees in Canada as well as in Australia, Sweden and Switzerland. Having weighed the arguments for and against AID, they concluded that it is morally acceptable within certain limits which safeguard the interests of the child: the donor, the couple and the doctor.

### Is Lucie

#### really Robert's daughter?

Lucie is born during the marriage of Robert and Michelle or within 300 days of dissolution or annulment of their marriage. Legally it is presumed that Robert, as Michelle's husband, is the child's father. However, he can always disavow the child before the courts or Michelle can contest his paternity. Yet, since Lucie was conceived by artificial insemination, the Québec legislator considers either recourse unacceptable on the grounds Robert and Michelle had given their consent for the treatment. The presumption, therefore, is that Robert is Lucie's father, whether his sperm or that of a donor was used for conception. That's how the Québec Civil Code sees it.

### Elsewhere, however...

To resolve case similar to Lucie's, study groups in England, Australia, Sweden and certain Canadian provinces have called for legislation which would recognize the child's legitimacy.

They consider it aberrant that the law would make a distinction between a child conceived naturally by parents who give their love and care and a child born out of artificial insemination. What society does to cement the family group in the case of a child artificially conceived is more important in their view than the defence of hereditary lineage.

American law generally is based on the principle that the child born of AID is illegitimate. Many states, however, have

legislated to give formal recognition to the child's legitimacy in cases where the husband has consented to the treatment. ■

## Access to AID:

### a matter for the couple

The technique of artificial insemination with a donor theoretically enables divorcees as well as single heterosexual and homosexual women to carry a child.

In practice, however, the single woman has little access to AID. In Australia, for example, it has been suggested that recourse to AID be restricted to married women or to women living in a stable common law union with a man who has consented to artificial insemination with a donor. In Sweden, psychosocial examinations are recommended for prospective parents, whether married or in a common-law relationship. A report published in British Colombia refers to the recipient "couple". In Ontario, while single women deemed stable have access to AID, the study group which looked into the matter agreed with other national committees that the child's best interest is served by a two-parent family.

For the time being, therefore, AID generally is available only to stable heterosexual couples. Two Québec centres, however, do not require the presence of a spouse. ■

## The question mark

### in the family tree

The man suffering from infertility in a couple desirous of a child becomes the legitimate and social father when there has been due consent in the case of a child born out of heterological artificial insemination.

The biological father is the fertile man who agreed to donate his sperm to a woman who is unknown to him, allowing her to conceive a child.

As matters now stand, however, the donor is father only by definition. He has donated his sperm and passed on his genetic stock anonymously. The infant conceived with his sperm is unknown to him and he is unknown to the infant whose mother was able to conceive because of the man's donation.



Marc Lajoie, ministère des Communications Concept: Diane Dubé

*Anonymity is sometimes seen as expressing the donor's refusal to accept parental responsibility and as a violation of the rights of the child conceived with his sperm.*

Anonymity is the rule in Québec and donors frequently make it a condition of participation, limited to conception of a maximum of 10 children.

## The right to know one's origins

The requirement of confidentiality as to the donor's identity negates the child's right to be aware of his origins.

The Conseil du statut de la femme (CSF) contends that such right exists and the child should be able to exercise it upon attainment of majority. In a brief presented to an interministerial committee on research concerning socio-biological origins, the CSF proposed legislation to this effect which would apply to AID and to future adoptions.

Sweden has already taken such steps. Since 1985, individuals conceived by heterological artificial insemination enjoy the right, once they become adults, to know the name of their biological father. Studies show adopted children experience a strong need to know their origins and the possibility of obtaining such information is an important factor in their development. Swe-

dish legislators decided children conceived by artificial insemination have similar needs. ■

## Sperm banks:

### the cold detour<sup>1</sup>

Does the husband want to ensure that, even after his death, his sperm can be used to conceive a child by artificial insemination? Would he like to preserve his capacity to procreate in the event its threatened by treatment for cancer of the testicles? And, in order to avoid transmission of sexually-related diseases such as haemophilia which strikes only male children, should one not be allowed to select from among the spermatozoa?

Science has come up with the answer: frozen sperm. Kept in a bank specially set up for that purpose, the frozen sperm can be used whenever needed.

The first sperm banks were established in France in 1973. Today the *Centre d'étude et de conservation du sperme humain* is a network of 15 establishments. It has acquired a vast experience in the management of frozen sperm banks and in the distribution of sperm samples to French doctors.

In 1975, the Ontario Law Reform Commission recommended that establishment of sperm banks be authorized and that they be allowed to operate on a commercial basis under license and strict regulations. The same commission recommended that importation of human sperm be allowed.

In British Colombia, the report of a consultative committee on the stockage and use of human sperm made known its opposition to such imports, but expressed the hope federal norms be established for Canadian sperm banks which would set a ceiling, among other things, on the freezing period.

In Québec, there are sperm banks at the Maisonneuve-Rosemont and Sacré-Coeur hospitals. ■

## Artificial Insemination

### In Québec

Insemination with donor sperm is available at:

<sup>1</sup> Postel-Vinay, Olivier, *Les enfants du froid*, Science et vie, No 805, 1984.

- infertility clinics listed previously;
- two birth control clinics, the Centre hospitalier de Rouyn-Noranda and the Cité de la Santé in Laval

According to these clinics, donors receive from \$25. to \$50. each time their services are required. The total cost, assumed by the couple requiring such assistance, usually amounts to \$200.

Recruiting of French-speaking donors appears to be more difficult than that of English-speaking ones.

### Homologous insemination

In Québec, insemination with the spouse's sperm is available at:

- infertility clinics;
- birth-control clinics;
- doctors' offices.

### 78% increase in five years

From 1979 to 1984, the Régie de l'assurance-maladie du Québec paid for 34 505 cases of artificial insemination throughout Québec. The figure does not indicate the number of women who resorted to the technique, but the number of inseminations actually carried out. The average number per woman is 8 or 10. ■

## In vitro fertilization: the test-tube relay

In 1978, Louise Brown, the first baby ever conceived in vitro, was born in England. The Americans "produced" their first infant in 1981, the French in 1982. The same year, twins were born in Canada. And Québec made it in 1985. Now there are almost 2 000 children in the world who were conceived that way. It's precious little, considering the research, the time, the money and the hope invested. But it's a lot as well, considering society still hasn't weighed the pros and cons.



Alpha Décoration

### Surprise!

An American sued his ex-wife and the University of Pennsylvania Hospital, alleging that sperm samples furnished before the divorce were used subsequently without his consent for the artificial conception of a girl, now one year old. His suit also called for lifting of a court order that makes him provide financial support for the child he apparently didn't desire. *Toronto Star*, July 5, 1986.

Amandine, the first French baby born via in vitro fertilization and embryo transfer.

### Help in conceiving

When a woman's body resists natural fertilization, either because of irreparable blockage of the Fallopian tubes or sterility of undetermined origin, the mating of ovum and sperm can be stimulated artificially outside the natural fertilization environment.

The high-tech rendez-vous takes place in a test tube under the watchful eyes of

gynecologists, biologists and specialized technicians.

In vitro fertilization (IVF) involves five steps:

1. **Hormonal treatment** — to ensure an adequate production of eggs by the ovary, intensive hormonal treatment is effected daily.
2. **Extraction of eggs** — a needle is inserted in the ovarian follicle through the abdo-

minal lining to recover the required eggs. Until recently, laparoscopy was used for the extraction, necessitating general anesthesia.

3. **Sperm recovery** — the spouse provides a sperm sample whose fertilizing capacity is maximized in the laboratory.

4. **Mixture of eggs and sperm** — the reproductive cells are placed together in an environment suitable for fertilization.

5. **Embryo Implantation** — if fertilization has occurred and the embryos are healthy, they are introduced into the womb through a catheter. To improve chances of success, more than one embryo is implanted. This may result in multiple births.

At one stage or another, the treatment may have to be abandoned by the couple, usually the woman. When hormonal stimulation proves unsuccessful, fertilization fails to take place or the embryo does not implant itself, there is no hope — unless the couple is prepared to start all over again.

### Other scenarios

In vitro fertilization can also take place with reproductive cells other than those of the woman who wants a child. When she is unable to produce the ova or when she is fertile but stricken with a genetic disease, the eggs of another woman may be used in one of the following scenarios:

- the donor's eggs are extracted, fertilized in vitro with the sperm of the man seeking paternity, then implanted in the womb of the infertile woman. If the spouse is himself infertile, sperm of a donor can be used.
- the woman donor is inseminated with the sperm of the spouse or that of a donor. When fertilization occurs, the embryo is transferred a few days later to the womb of the infertile woman so that it can implant itself.
- the egg of the fertile woman is transferred to the sterile woman, then fertilized by the sperm of the spouse or that of a donor.

### Not a painless process

In vitro fertilization involves a complex series of operations which may have to be repeated if they fail the first time. In her book, *The Mother Machine — Reproductive Technologies from Artificial Insemination to Artificial Wombs*, the American author Genoveffa Corea describes the following risks, based on studies and the experiences of recognized specialists:

- hyper-stimulation of the ovaries can produce cysts;
- the dangers of general anesthesia (used in laparoscopy) and the possibility of ovarian trauma;
- a higher rate of miscarriages and multiple births; the danger of ectopic pregnancies (outside the womb), of abortions provoked by examinations (ultrasound and aminocentesis carried out during pregnancy);
- the possibility of anomalies in the chromosomal makeup resulting from hormonal stimulation or manipulation of the egg and embryo. ■

### From one technique to another

In the upheaval engendered by new technologies of human reproduction, the questions raised by the practice of in vitro fertilization and the arguments put forward by opponents and advocates alike strongly resemble those frequently associated with discussions on artificial insemination.



*In vitro encounter of sperm and egg.*

For example, like artificial insemination with a donor, recourse to in vitro fertilization is usually proposed to married couples only. But the College of Obstetricians and Gynecologists in Britain goes a step further: it recommends that single

women be given access to IVF, but only in exceptional circumstances to be determined by a doctor.

Religious groups tend to regard both techniques as immoral since they are seen as upsetting the natural order, endangering the family and separating the procreative and conjugal aspects of marriage.

The arguments for and against the donation of sperm can be applied to a large extent to egg donation as well. The latter is justified on the grounds that, notwithstanding the intrusion of a third person, the spouses contribute directly to the birth of the child, the man by providing the sperm, the woman by carrying the fetus. Arguments against egg donation stress the risks extraction involves for the woman.

Questions dealing with the selection of female donors, anonymity and consent are equally relevant with respect to in vitro fertilization. The need for legislation to safeguard the child's status appears evident.

But here analytical comparisons end between artificial insemination and in vitro fertilization. The latter technique raises a number of specific questions rarely mentioned in media reaction to IVF births. ■

### Success story

*For the Jacobsen couple, fertilization in vitro worked so well there are now seven in the family: their five sons were born prematurely by caesarean March 26, 1986. La Presse, March 30, 1986.*

### Somewhere in bank

### lies a waiting embryo

Several embryos are produced by in vitro fertilization of ova. Some find their way into a womb where they will become a fetus. Then there are the others... What should be done with embryos that aren't reimplanted? Should they be frozen for implantation later in the same woman or in another woman? Ought they be used for experimentation? To ask such questions is to beg another, the most basic of all: when does human life begin?

## Wanted: a status

Scientific, religious and philosophical opinions regarding IVF differ from those expressed in the debate on abortion. Some argue the embryo is a human being or potentially so, not raw material. Others maintain the embryo is neither a person nor a potential person but rather a mass of cells which, unless implanted in a human uterine environment, has no potential for development.

The law offers a certain degree of protection for the embryo and the fetus. In Québec, the infant who is conceived but not yet born is considered a person when his interest is at stake — on the condition he is born alive and capable of living.

Thus the fetus enjoys a legal existence conditional on birth and viability. Our legal system, however, makes no provision for the juridical and ethical questions raised by new technologies. The Commission des droits de la personne du Québec has recommended that the Québec legislator amend the Civil Code to include provisions covering the prenatal condition.

The status of the embryo is a sensitive issue. Yet it will have to be dealt with some day because science which moves along so swiftly has made time of the essence.

## For embryos-in-waiting, a cold country indeed

Freezing of embryos "produced" during in vitro fertilization is now a reality. When a first IVF attempt fails, technique makes it possible to avoid laparoscopy and proceed with a new implantation during a more favorable cycle.

But suppose the woman or the couple refuses to try again. The embryo created by their cells will wait there, frozen, in a specialized bank. Who owns an embryo abandoned by the parents or one whose parents die? Should it be destroyed? Should it be given up for adoption to other parents or kept for research? Does it have any right to the legacy of the biological parents? The freezing of embryos can modify generations: notions of age, of parental links, of birthright can all lose their present meaning.

The unknown effects of long-term freezing and the difficulty of resolving the related moral and legal issues underscore the need to set a limit as to the time embryos can be kept frozen. In Australia, the National Health and Medical Research Council has recommended a limit of 10 years and means to respect the wishes of the donors of gametes. In Ontario, it has been suggested conservation be reviewed every five



Embryo implantation in the womb of an infertile woman.

years. In Great Britain, a limit of 12 months is favored by the British Medical Association while the College of Obstetricians and Gynecologists, without suggesting a specific period, believes a limit ought to be established and a specific objective set, say a second pregnancy for the same couple.

Experts insist on the power of decision-making as to the fate of supernumerary embryos must rest with the couple which provided the gametes. Should one of the two die, the survivor would decide; should the two die or in the event of disagreement, the decision would be made by the institution or the attending physician.

## Discovering the embryo's secrets

Utilization of the human embryo for research purposes would help to improve IVF efficiency and contribute to a better understanding of infertility, embryonic development, and fertilization and implantation procedures. It would certainly prove useful to researchers and couples afflicted with infertility, but the fundamental question concerning the status of the embryo would remain unanswered. Depending on the nature of the safeguards provided, should research be allowed or not? Generally speaking, study groups throughout the world believe general prohibition of

research on the human embryo would not be justified. They suggest it be allowed under certain conditions, including consent of donors and establishment of limits to embryonic development.

Somewhere in a bank, a frozen embryo is waiting. ■

## Getting a head start

In Australia, a new method of in vitro fertilization enabled a 29-year-old woman to give birth to twins. Dr. Christopher Chen explained that three eggs had been extracted from the mother, frozen, later unfrozen for fertilization and reimplanted. Two of the fertilized eggs survived. Dr. Chen believes the new technique resolves ethical problems created by the freezing of embryos. *La Presse*, July 5, 1986.

## An opportunity

## and new risks

The very existence of the IVF technique puts implicit pressure on women who might otherwise have to abandon the search for fertility.

Of the 32 women interviewed in the survey of the Conseil du statut de la femme, those who had recourse to in vitro fertilization said they had made up their minds about it a long time ago. Their doctors didn't have to persuade them since they saw the treatment as a marvellous opportunity. Some had reluctantly accepted their condition of infertility, by found their guilt feelings rekindled by development of the IVF technique.

"I was afraid of feeling badly afterwards, of having to start all over again, but the feeling that 'maybe...' proved stronger... I wanted to try, but I was afraid... It was as if I had lost 2 000 pounds. I never felt lighter in my life. I had gone as far as I could... I did everything humanly possible."

Regardless of the low rate of success, it appears difficult not to imagine that one might be the exception for whom IVF will

achieve the desired pregnancy.

"I was convinced it would work for me. And I'm stubborn. I said to myself, 'It works for one out of 20 women in Québec. I'm going to be that one'."

They wanted the treatment so deeply doctors did not have to pressure or even encourage them. Such acceptance obviously facilitates the task of the medical team. Is that why certain "good" candidates were accepted for second, third and even fourth attempts without the least suggestion that take the time to think about it?

"He didn't have to ask, 'Would you like to try again?' Not even that. It was I who told him I wanted to start all over again the following month. He merely said, 'Fine. You're not on a waiting list. Just drop in three days before and we'll give you a prescription'."

Yet the woman had found the IVF experience trying.

"I was sure it would work. When he told us it hadn't worked, the roof caved in... I found it extremely difficult to pull myself together."

No one seemed concerned about the physical and emotional condition of another woman who, when IVF treatment failed at the hormonal stage, tried once again right after her menstrual period. During the new attempt, four fertilized eggs rather than three were reimplanted with her consent.

"We signed the papers agreeing to take the risk. They said it would improve the chances of success considerably. We were pretty confident it would work, but again it failed."

At the time of the survey, she had made up her mind to try once more. They had told her again the probabilities would be better than ever.

### Tails, you lose

So the "marvellous opportunity" that IVF is seen to represent is not bereft of risk or difficulty: side effects, the possibility of multiple births, the need to be available during treatment, the costs involved, the hope at each suspenseful stage.

IVF is almost at the end of the road. Before it, the futile sexual relations, the many examinations, other treatments that have led nowhere. During IVF, either the desired pregnancy or failure. After it, the fetus that must be carried until birth or the difficult acceptance of the reality one will never conceive a child, either on one's own



*The embryo is progressively withdrawn from the azote in which it was frozen. The status of remaining embryos raises many questions.*

or with the help of others, however specialized they may be. ■

### It beats hypophysis

*During a meeting of French ovulation specialists, it was explained that use of the hormone DRTP6 makes it unnecessary for IVF teams to wait until hypophysis sets off ovulation naturally. Now it can be programmed regardless of the woman's normal cycle: extraction of eggs at the beginning of the week, fertilization in a test tube, implantation of the embryo at week's end. "The result: better planning, reduced operating costs. (It is possible to close down on Saturday and Sunday, leaving only one doctor on duty)." Unfortunately, however, the alphanumeric hormone still costs a lot of money. Parents, August, 1986*

## In vitro fertilization

### In Québec

Four specialized hospital clinics provide in vitro fertilization as a palliative for infertility:

#### In Montréal

The Queen Elizabeth Hospital  
L'hôpital Maisonneuve-Rosemont  
L'hôpital Saint-Luc

#### In Québec city

Le Centre hospitalier de l'Université Laval (CHUL)

The CHUL infertility clinic is the most important in Québec in terms of IVF services. There the first pregnancies were achieved and there, too, the first test-tube baby was born in 1985 after six years of research on humans.

### IVF, a matter of money

Access to the treatment is generally limited to married couples who can afford it. In one clinic, the treatment costs \$1,000, and hormones cost another \$500. Travel and bed and board for two or three weeks make it more costly for women who live outside Québec city and Montréal. Couples assume only direct costs. Other operations related to IVF such as laparoscopy are billed to the RAMQ.

### Regulation

The practice of fertilization outside the woman's body is subject to no specific legal restrictions or control mechanism. Ethics committees in hospitals are consulted only when called upon to review research projects for the purpose of grants. ■

## Surrogate mother: for the duration... of the pregnancy

It's quite a favor asking another woman to carry the child one can't or chooses not to carry. It's also quite a commitment for her to make. And it's likely to be quite a task for the child to accept the very special circumstances of his conception and birth.



Paris, July 22, 1985 — Left to right, Mireille, the adoptive mother; Dominique, the surrogate mother; and the latter's husband, Jean-Luc, during labor. The young woman had been inseminated with the sperm of Mireille's husband.

### The third person

Many reasons prompt couples to ask another woman to help them achieve the pregnancy they desire. A woman may want a child, but is physiologically unable to carry one and give birth. She may be fearful of transmitting a hereditary disease or too impatient to accept the long adoption

process. Or it may be that, for personal reasons, she's unwilling to carry the child.

Once formal agreement is reached, the surrogate mother will be artificially inseminated with the sperm of the woman's husband, carry the baby and, at birth, hand him over to the couple. Her contribution is important: not only does she participate in conception, but she also goes through the pregnancy and labor.

She may be required at times to agree to implantation in her uterus of the embryo resulting from the natural or artificial mixture of the couple's gametes (in cases where the infertile woman is nonetheless able to produce the egg). Here, again, she will be called upon to assume the pregnancy, give birth to the child and hand him over to the couple who wanted and paid for him.

Recourse to a substitute mother is perceived by the couple as having a marked advantage over adoption since either the man or the woman, or both, will have a genetic link with the child.

### Who are these surrogate mothers?

In the United States, Dr. Philip J. Parker carried out a study in 1983 among 125 candidates for surrogate motherhood. It revealed that most were married, had experienced at least one previous pregnancy, minimized their genetic contribution as substitute mothers and wanted payment of at least \$5 000. For 89% of the women, receiving payment was essential, but it wasn't everything. The psychological motivation was also important. Some wanted to fulfil the couple's wish for a child. For others, consciously or otherwise, it helped overcome regret over an earlier abortion or perhaps over abandonment of an infant.

Once recruited by an agency or a lawyer, future surrogate mothers, similarly to sperm donors, must undergo various examinations and physical, psychological and intellectual tests designed to evaluate their motivations. Unlike sperm donors, however, that is when their real commitment is made.

### Surrogate mothers in Québec?

Little information is available on the incidence of substitute motherhood in Québec. It is known there are infertile couples anxious to have recourse to surrogate mothers, women prepared to accommodate them, individuals willing to serve as intermediaries, but as yet no specialized agencies. ■

### Motherhood in the market-place

The commercial aspect is probably the most controversial question raised by this new form of maternity.

Is the sum of \$5 000, \$8 000 or even \$25 000 the sales price of the child or the price to purchase her consent to adoption? Is it payment for services rendered and

reimbursement of her expenses?

A new market has come into existence. In several countries, agencies specialize in the recruiting of potential substitute mothers and act as intermediaries between them and the couple seeking a child. In Paris, it's the Association nationale pour l'insémination artificielle par substitution; in Marseille, Mères d'accueil; in London, Miracle Program Incorporated. Some lawyers individually also offer such services.

Complicated contracts spell out conditions of the agreement between the substitute mother and one or both members of the couple. After all the negotiations, analysis, sharing and payment, what remains of motherhood?

And what remains of certain value when the child, notwithstanding good intentions all around, becomes a commercial object? ■

### Just sign here

### to become father and mothers\*

On the contract that details rights and obligations of the parties, there may be two signatures (that of the husband in the child-seeking couple and that of the surrogate mother) or perhaps three (that of the future social mother if she furnished the egg).

The signature of the substitute mother means she has agreed to a long list of conditions:

- to submit to medical examinations before and during pregnancy;
- to be inseminated with the sperm of the spouse (or that of a donor, which hardly simplifies matters) or to receive the fertilized egg;
- to forego sexual intercourse during the period of artificial insemination;
- to behave in a manner that will ensure healthy development of the child (proper nutrition, exercise) and to give up her right to abortion unless required for health reasons;
- to accept any operation deemed necessary by the medical team, including a caesarean;
- to give birth, to recognize as the father

\* the biological mother: provides the egg and carries the child, assuming the function of maternity in its entirety.

• the genetic mother: provides the egg.

• the womb mother: carries the child.

• the social mother: adopts the child conceived and carried by another woman.

the man who has signed the contract and to consent to adoption by the social mother.

If the surrogate mother is married, her husband will have to agree not to claim paternity rights. He will also have to agree to examinations after the child is born to avoid ambiguity as to the paternity.

The couple commits itself to take the child and to pay the agreed amount.

### And what if someone has second thoughts?

The surrogate mother may change her mind before insemination, during pregnancy or after the child is born. In such cases, the father may have no recourse other than to demand reimbursement of expenses or whatever compensation has been provided for in the agreement.

The father could refuse to honor the contract, rejecting the child because of a handicap. He could deny paternity, refuse to pay the agreed amount.

The contract may have been well prepared, but its implementation can give rise to serious problems. The validity of such agreements has yet to be established.

### Null and void?

There exists no law at present bearing directly on agreements of this nature and existing legislation is quite inadequate to settle possible problems.

Legally, a person cannot be the object of commerce. Moreover, an agreement with a surrogate mother, if interpreted as remuneration for abandoning her parental rights, constitutes a violation of public order since such rights are inalienable. Most laws governing adoption make any payment of money a criminal offense. In other words, were financial compensation to the substitute mother interpreted as purchase price of the child, the agreement would be deemed in violation of adoption laws prohibiting such payment. Consequently it would be null and void. ■

### The bond the contract

### didn't provide for

The pregnancy went well, the child is born, the parents have completed adoption, the surrogate mother has returned to her studies, the contract has been honored. The file is closed. Or is it? In appearance, yes, but not necessarily in fact.

Carrying a baby nine months obviously creates a bond: for the sake of the child, one has eaten differently, set aside that pack of cigarettes, put away the skis. Because of the child, one has experienced morning sickness. Because of the child's presence, one's body felt life inside.

Bringing a child into the world leaves traces in the body and in the heart.

It can be heartbreaking to tear oneself away from a child one has hardly seen and hand him over to the genetic father and his spouse. Particularly when the infant bears one's imprint.

Bonds, traces, marks, an attachment no contract can either provide for or prohibit. ■

### How the world views it

Experts in many countries have expressed opinions on the matter. Most reject the practice of substitute motherhood. In England, the Warnock Report is clearly unfavorable to such agreements. From an ethical viewpoint, surrogate gestation has been described as totally unacceptable when a woman is physically able to carry a child but finds it inconvenient to do so. Even when justified by medical circumstances, surrogate motherhood is rejected on the grounds that the danger of human exploitation outweighs possible benefits that may be derived. The report goes so far as to recommend that it be made a criminal offense to establish or operate an agency for the purpose of recruiting and negotiating agreements with substitute mothers. The British College of Obstetricians and Gynecologists, the British Medical Association and the Victoria Report (Australia) also reject the practice of surrogate motherhood in connection with in vitro fertilization.

A committee in Ontario is the only group not to oppose it. That committee has recommended passage of regulations to govern such contracts, suggesting provisions as to the form and content. Contracts would be subject to prior approval by the courts.

Seven American states have introduced bills on surrogate motherhood. The legislation frequently includes a clause to the effect that any agreement with a surrogate mother must be in conformity with existing provisions of the law. Thus excluded are agreements that violate existing laws, but that does not solve the problem of illegal agreements. In such cases, unfortunately, it's the child who must accept the consequences. ■



A

medical

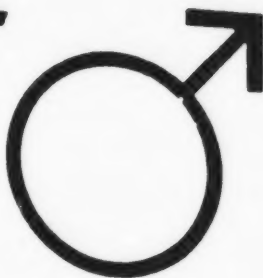
It so,

effect?

sible

decide

We want and ought to go  
to safeguard  
the quality of our lives



## Genetic manipulation: useful and worrisome

**S**perm, embryos and ova don't have an easy time of it nowadays. In laboratories everywhere, they're being observed, isolated, separated, selected, modified, stimulated. But to what and whose benefit? And how far do researchers intend to go? Before the French biologist Jacques Testart set his own limits, he was prepared to go far indeed.

### Genes bare their secret

Genetic manipulation consists of a series of operations that are at different stages of development. These operations make it possible, prior to conception, to choose the sex and other genetic characteristics of the future child, to eliminate certain diseases and to reproduce from a single cell.

### In the case of sperm...

Research efforts have focused on the penetration capacity of sperm and development of techniques to split the X and Y chromosomes in spermatozoa.

Evaluation of the quality of sperm for in vitro fertilization and artificial insemination and of its penetration capacity is made by injecting it in hamsters, rats, mice and monkeys. The council of the European Medical Association approved

such experiments, although it recommended that the resulting embryos not be allowed to go beyond a certain stage of development.

A technique developed by a California researcher makes it possible to separate male Y and female X chromosomes in spermatozoa to increase the odds of having a child of the desired sex. The sperm, either with a concentration of X or Y chromosomes, can then be used for artificial insemination. Dr. Ericson says the technique facilitates removal of immature and abnormal sperm, reducing the dangers of miscarriages and of giving birth to physically or mentally handicapped children.

### As to the embryo...

Leaving to theologians, philosophers and jurists the difficult task of defining the status of the human embryo, scientists use various techniques to pursue studies enabling them to learn more about the mechanics of the creation of human life.

- embryo freezing: before the embryo reaches the stage of cellular differentiation, it is placed in a protective solution which is slowly frozen. It can then be preserved for a number of years.
- separation of blastema: the embryo is split in two, four or eight parts, each of which can produce an individual. At a given stage of development, one of the parts is frozen to be used, in the event of malformation, as a backup of healthy cells for other parts that have been implanted. Blastema separation research is being actively pursued by Dr. Edwards, a pioneer in IVF.
- filtering embryos: in vitro fertilization makes it possible to choose from among the embryos while searching for genetic anomalies.
- modification of the genetic code: an anomaly can be corrected or a new genetic characteristic introduced in an embryo or a fetus. The technique is also known as genetic therapy or genetic manipulation in the strict sense of the term.
- inter-species fertilization: an attempt has already been made to mix the cells of embryos of two different breeds of the same spe-



Through cloning, Professor Peter Hoppe was able to create three little mice that were "genetic doubles" of the basic embryo.

Alpha Diffusion

cies, specifically mice. It produced mice of two colours. Eventually it may be possible to introduce genes from one species to another, say from humans to animals or vice-versa.

### One cell is enough

Researchers around the world are experimenting with ways of reproducing animals from a single cell.

The fact that all the cells of an individual contain the totality of his genetic information constitutes the basis of the technique of reproduction by cloning since the cells from a single individual could be used to create others genetically identical. Until now the experiment apparently has never succeeded in humans. Two reasons have been put forward for eventual use of the human clone: on the one hand, the desire to have offspring with the same genetic makeup; on the other, the possibility of reproducing individuals with great intellectual or athletic capacities or with certain specific characteristics.

Nuclear transplantation can have the same effect on genetic identity, but that technique necessitates use of a specialized cell.

With parthenogenesis, embryonic development can be triggered by chemical or mechanical stimulation of the egg alone, eliminating the need for the male gamete. In Edinburgh, biologists have brought cellular separation of a single unfertilized egg up to the eighth cell. ■

### Children à la carte

A family of boys who were planned, a fatherless girl, twins of different ages, offspring with a special talent for mathematics, children without a single defect — the stuff of fiction?

Behind locked doors, genetic science is making giant strides. Its techniques are being refined, its horizons broadened. It has achieved success upon success and actual application of the techniques being developed appears both useful and worrisome. We may benefit from its

discoveries, but we are in the dark as to its real objectives.

Just how far can science go? As far as the family of planned boys or the fatherless girl? As far as the com-

mercialization of embryos of famous origin or the blind rejection of the disabled?

Genetic manipulation raises as many questions as it resolves. ■

### A biologist sets his own limits



Jacques Testart, renowned biologist

Professor Jacques Testart, a leader in the field of artificial reproduction, has decided not to push forward with research on certain aspects of genetic manipulation. The evolution of such research has him deeply worried and he believes that there are limits beyond which research must not venture. The French biologist, a world-renowned expert in both in vitro fertilization and the freezing of human embryos, is the author of *De l'éprouvette au bébé spectacle*, in which he reveals exciting perspectives for science that could be worrisome for humanity. He has now called a halt to his own ambitions. In his latest book, *L'oeuf transparent*, he calls for an international moratorium on such research. "I am well aware," he says, "that my decision is a form of professional suicide." *Le Devoir*, Sept. 15, 1986.

### An open letter to Jacques Testart

Following Dr. Testart's announcement, Francine C. McKenzie, president of the Conseil du statut de la femme, sent the following message to the scientist and the media:

It is good to hear from across the sea that a French scientist has decided to limit his research in the field of artificial procreation.

The ethical choice not to cross the frontier of "research bearing on the identity of the human egg" will go down in history. By refusing to produce made-to-measure children, you have bridled the medicine of desire and thrown a monkey-wrench into the machine of "progress". As a result, people need no longer feel like dinosaurs because they want to give the matter some thought. Only one voice of dissent was needed to create a doubt. Thanks for providing that voice.

Some of your peers here have already taken note of your decision. Your plea for common sense has been heard.

We can only hope your suggestion regarding a world-wide moratorium elicits wide support.

The Conseil du statut de la femme which I head is conscious of the abuses and dangers you refer to. That is why, for the past two years, the fait accompli attitude on the question has concerned us. That is why we have challenged the annoying doctrine that would have us believe the development of new techniques is inescapable.

Nor is pride in our species likely to be fostered by the perspective of C.V.I. (congelation of sperm, vasectomy and insemination) as a solution to the problem of birth control.

Stimulated by your view that ethical choices must precede discovery, we are more than ever resolved to wager on the power of thought and enlightened public opinion.

You have achieved what a hundred ethicists cannot accomplish. You have made ethics fashionable. Congratulations.

# Prenatal diagnosis: tell me what you are, I'll tell you what will become of you

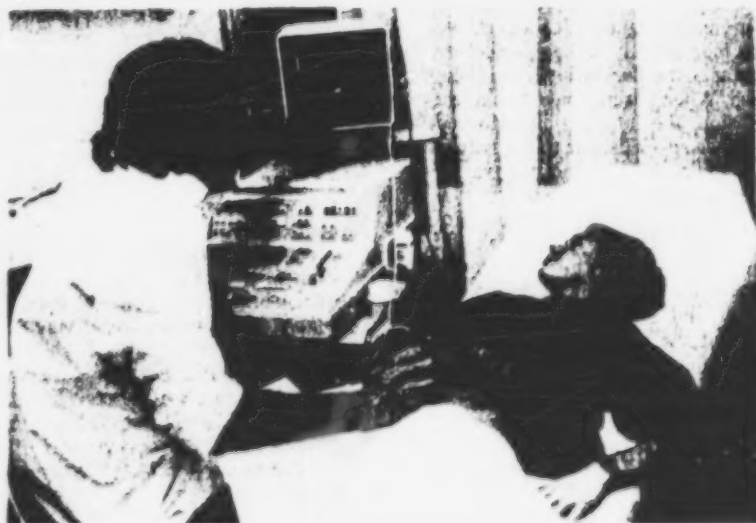
**R**apid progress in genetic research and its applications in the field of reproduction have provided clinicians with new tools for qualitative birth control. It's no longer a matter of determining if one can have a child, but rather of knowing what the unborn child is and will become. Knowing beforehand is not necessarily a blessing.

## The fetus analyzed

Various examinations carried out during pregnancy make it possible to gather information on the fetus and to detect malformations or diseases.

## Access to prenatal examination

Apart from ultrasound, such examinations are not automatically part of medical supervision of pregnancy as practised at the present time.



Most pregnant women undergo at least one ultrasound test.

Such examinations are justified in specific circumstances:

- mothers over 35 years of age;
- after repeated miscarriages;
- where a parent suffers from hereditary disease;
- when a first child was stillborn or abnormal.

## Prenatal investigation and diagnosis

- ultrasound: in obstetrics, ultrasonography through the abdominal lining provides an image of the fetus in the womb. The age and size of the fetus, its position and its sex can be determined. During prenatal diagnosis, the ultrasound can detect certain anatomical malformations (brain, organs, limbs);
- amniocentesis: guided by the ultrasound, a fine needle is inserted in the abdomen to withdraw a small quantity of fetal fluid. Laboratory analysis of the amniotic fluid and the cells provides information on the sex and blood group of the fetus and indications of genetic anomalies that may be clues to potential disease or malformation;
- chorionic biopsy: through the cervix, a sampling is taken of the chorion, the membrane surrounding the embryo, where the placenta and umbilical chord meet. Direct access to cells of fetal origin makes results of the analysis available more rapidly; sex of the fetus, metabolic diseases, chromosomal anomalies. The Montréal Children's Hospital now uses the technique on an experimental basis;
- fetoscopy: with a fine fiber-optic telescope inserted in the amniotic cavity, various parts of the fetus can be observed and samples of fetal blood or tissue extracted to detect certain diseases. Since there is a risk of abortion (5 to 10%), the technique is rarely used.

## Risks and effects

Risk of injury to the fetus or of spontaneous abortion is only minimal in amniocentesis. A shortcoming of the technique, however, is that it can only be used when pregnancy is advanced. The extraction cannot take place before the 16th week because the amniotic cavity does not contain sufficient fluid. Then two to four weeks are required for cell culture. If positive diagnosis denotes need for an abortion, physical and psychological effects are greater in the 18th or 20th week of pregnancy.

The ultrasound and the chorionic biopsy can also produce miscarriages.

## What's on the horizon

Prenatal diagnostic techniques are developing rapidly. In addition to indicating malformations and diseases in the fetus, the examinations will make it possible in the future to detect any tendency towards diabetes or cardiovascular troubles that may appear in adulthood.

Tell me what you are, I'll tell you what will become of you. ■

## Condemned to be born perfect

Annie has just undergone a prenatal examination because she has had repeated miscarriages. The amniocentesis brings bad news: the fetus is afflicted with spinal bifidity, a defect of the neural tube the seriousness of which varies from one individual to another.

Now that she knows, Annie must decide quickly. Should she have an abortion or go ahead with the pregnancy and wait until the child is born to decide whether to choose treatment, give the child up for adoption or have him placed in an institution?

Like most couples confronted with a diagnosis of fetal anomaly, Annie and her husband probably will opt for the abortion. It's a decision that involves basic questions for her doctor, for herself and for society.



Marc Lapelle: ministère des Communications

*Is it right to give birth to infants bound to become a social burden or shouldn't we do more for those who have less?*

## Abortion under medical pressure

Before performing a prenatal diagnosis, some doctors want the woman to agree beforehand to an abortion in the event the diagnosis is positive. They maintain the examination is futile if the woman is determined to go ahead with the pregnancy regardless of the results.

Not everyone is in agreement with that approach. But it does focus on the question of the real objective of prenatal diagnosis. It suggests we look more closely at the role doctors play as counsellors on birth and childhood. When parents have to make a decision, the information gathered by these specialists as to the nature of the disease detected, its gravity and the possibility of treatment is indispensable. And the way they provide such information can make all the difference, the difference between medical power that is imposed and that which takes into account the freedom and values of the couple.

## When abortion is freely chosen

Annie has a gynecologist who doesn't lay down the law. Should she decide to interrupt the pregnancy

after being made aware of the consequences of the fetal anomaly and the alternatives that exist, she will be making a free choice rather than reacting to medical pressure. She really wants the child, but she cannot and will not accept the idea of giving birth to one who is or will become handicapped. So she accepts responsibility for rejection of the abnormal fetus.

## Selective abortion as a societal choice

Is the progress of prenatal diagnosis likely to result in more abortions? Further diminish the birth rate? By progressively eliminating individuals deemed undesirable, shall we foster eugenic policies to improve the human species? Will abortion remain a personal matter for women when techniques such as automated prenatal diagnosis, getting inexpensive and popular, make it possible to detect genetic anomalies in the first weeks of pregnancy? Shall we all become intolerant of any disease, serious or not, ranging from daltonism to the absence of a brain? Is it right to give birth to infants bound to become a social burden or, on the

## Made to order

*The couples in question wanted girls... and girls they got. Once their choice had been made, they could leave the rest to the doctors. The latter separated the X from the Y chromosomes in the sperm and artificially inseminated the future mothers. Results: at least six "made-to-order" girls were born in Japan between September 1985 and January 1986. Now sixty Japanese doctors reportedly have mastered the technique which could be used to control certain hereditary diseases. Le Soleil, May 31, 1986.*

*In United States, a woman was also able to select the sex of her child but fertilization in vitro was used to mate the X-chromosome-rich sperm and the ovule. The Globe and Mail, September 30, 1986.*



contrary, shouldn't we do more for those who have less but who, in their way, enrich society? Can we really expect to take the risk out of being born and out of living?

These questions must be answered by Annie and by the women like her, by the men who share their lives, by the gynecologists and by the politicians.

## A boy?... A girl?

No more need for surprises when a child is born! Now we know, long before the happy event, if it's a girl or a boy. That's one of the results of prenatal diagnosis.

Knowing the sex of the child is necessary if there is any indication of congenital malformation, say hemophilia in a male fetus. Then prenatal diagnosis is a meaningful medical procedure.

But it isn't always so. Is prenatal diagnosis morally and socially acceptable when it serves such non-medical needs as sex selection or parental curiosity?

In the first case, prenatal diagnosis seeks to determine the sex of the fetus so the pregnancy can be interrupted if the parents are not satisfied. Sociological studies in many countries prove most couples prefer a boy as first-born.

In the second case, the motive is mere curiosity. The parents just want to know if it's a boy or a girl. Thus the real purpose of ultrasound is sidetracked with the procedure being used to obtain information of secondary importance (sex, size, position) rather than to detect the malformations or diseases for which the technique was designed.

Many reasons are advanced to refuse prenatal diagnosis that is not dictated by medical necessity. In *Reproductive Ethics*, Michael D. Bayles defines the chief reasons as the risk of spontaneous abortion, the financial burden on the State and the lack of resources.

In its 1984 report, the National Institute of Health in the U.S. said it did not favor prenatal diagnosis in cases where the patient derives no medical benefit and it is solely intended to satisfy the couple's wish to know the sex of the child, to see the fetus or to obtain a photo for commercial or educational purposes. On the other hand, while it rejects the tendency to make sex identification and selective abortion a normal medical practice and an instrument of birth control, the Genetic Research Group of the Hastings Center nevertheless maintains that legal constraints would violate the principle of non-interference in parental decision-making (as reported by Powlledge and Fletcher in *Cahier de Bioéthique* 2).

Here, too, there exists a need for norms. ■

## The fetus' turn to become the patient

To speak of open-womb fetal surgery seems perhaps more farfetched than open-heart surgery in the fifties. Yet that avenue is being explored and medical treatments and surgical procedures have been successfully tested.

A medical team at the University of Colorado placed a drainage tube in the cerebral cavity of a 24-week-old fetus to extract surplus cephalin fluid.

At the San Francisco University Hospital, a urinary malformation in one of the twins conceived by a 41-year-old woman was corrected after detection in an ultrasound.

A team from the medical faculty at Mount Sinai in New York was able to select between twins, one normal, the other afflicted with an anomaly. During an ultrasound in the 21st week of pregnancy, a long needle was inserted in the thorax down to the heart of the abnormal twin in order to withdraw half of the blood supply. That brought about cardiac

### Even before birth

When a surgical team in California spotted a blockage in the urinary tract of the fetus, it opened the mother's uterus, pulled out the legs and lower trunk (the rest was attached to the placenta), opened the abdomen, made an incision in the bladder and put the patient back in his "natural environment" for the final three months of gestation.

Announcement of the successful operation was delayed until the child's first birthday. "Two similar operations were attempted previously," the announcement said, "but Mitchell is the first to have survived so long." *Le Soleil*, December 9, 1985.

arrest and ended movements of the fetus. The normal twin was then born without difficulty and the dead fetus expelled.

A few weeks later, a similar operation was attempted in Virginia. It provoked a premature birth and the death of a healthy child.

With time and further research, doctors will be able to correct more and more fetal anomalies. It remains to be seen who stands to benefit. Who is the patient, the fetus or the mother? Has the fetus the right to treatment? If so, how can it be reconciled with the mother's right to have an abortion and to consent freely to medical procedures? Many more questions of the kind can be added to what is already a long list.

When prenatal diagnosis brings bad news, fetal surgery can offer the woman a choice other than a handicapped child or an abortion. But the uncertain results and the physical and psychological pain that go with it can be a high price to pay. In the end, will a woman always have the choice? ■

### Curbing genetic manipulation

The Parliamentary Assembly of the European Council has laid down a code of ethics for artificial procreation, prohibiting all experimentation with living embryo, viable or not. The Assembly, composed of national representatives from 21 countries, also ruled out any manipulation or deviation made possible by present medical techniques with a view to "creation of identical human beings through cloning, creation of identical twins, implantation of a human embryo in another species or vice-versa, creation of embryos with the sperm of different individuals, creation of children by persons of the same sex, sex selection through genetic manipulation for non-therapeutic reasons and production of human embryos for research purposes." *Journal de Québec*, September 25, 1988.

## Prenatal diagnosis practices in Québec

### Ultrasound

Between 1979 and 1984, ultrasound tests carried out throughout Québec totalled 728 896. The number has been increasing annually.

It is not known how many ultrasound tests were carried out for prenatal diagnostic needs as such, but use of the technique apparently has become routine. It can be said that, during the course of pregnancy, women undergo at least one ultrasound and frequently two.

### Amniocentesis

Amniocentesis is practised at the Montréal Children's Hospital, at Sainte-Justine, at the Centre hospitalier de l'Université Laval and at the Hôpital de Chicoutimi. All four establishments are part of the *Réseau de médecine génétique du Québec*. Amniocentesis is also practised at the Hôpital Sainte-François-d'Assise and at the Royal Victoria Hospital.

In the first three hospitals mentioned above, doctors performed more than 10,000 amniocentesis in the course of prenatal diagnosis during pregnancy and of blood tests

designed to avoid post-partum problems in the latter stages of pregnancy. Most women who underwent the operation were over 35 years of age.

Amniocentesis research is centered on the information it can provide rather than on the technique itself. New tests are being made available almost monthly to prenatal diagnostic teams. Three hundred of the 3,000 known genetic diseases can now be detected and present research is designed to increase the number.

### The cost

Medical costs related to prenatal diagnosis are billed to the Régie de l'assurance-maladie du Québec. Between 1979 and 1984, the cost of ultrasound tests was \$12 000 000 and that of amniocentesis \$385 000.

The techniques of prenatal diagnosis are being introduced and developed in Québec at about the same rate as elsewhere. The tendency is towards earlier, faster tests that would substantially increase investigative potential. ■



While favoring greater access to prenatal diagnosis, activists for the rights of handicapped persons also want more information and assistance for women who must choose between abortion and the responsibility of raising a handicapped child. Not everyone shares their point of view.

Marc Laporte, ministère des Communications



**Right to know —**

*reproduction artificielle*

*A notre avis*

**H**ere in Québec  
elsewhere in Canada,  
in the U.S. and Europe,  
women are speaking out  
and writing  
to alert public opinion  
on the issues  
of artificial reproduction:  
the hidden objectives,  
the power it confers on some,  
the possible consequences,  
the rights it jeopardizes.  
It's a difficult task,  
but a necessary one.  
Their viewpoints,  
concordant or contradictory,  
are expressed herein.  
One may agree or disagree,  
but we cannot ignore them.  
Not if we really want  
a meaningful debate.

## Medicine's solution

**M**edical resources frequently offer the only solution when couples want a child and can't or when they face psychological obstacles. Feminists contend that solution is too technology-oriented, largely indifferent to women's real needs, geared to cure rather than prevention, control rather than free choice. And theorists are not the only ones who see it that way.

### Controlled reproduction

Several women authors perceive current medical research and practice as an attempt to exercise psychological control over a woman's reproductive system rather than relieve suffering and satisfy her desire for maternity and autonomy.

Medical practice relies increasingly on high-tech methods entailing violent and costly means controlled by health specialists and not the women concerned.

#### The woman machine

The process of human reproduction has begun to resemble the industrial production model. It is split up into several

operations and efforts are made to control each one of them, whether they occur inside or outside the woman's body. The objective: best results at the lowest possible cost.

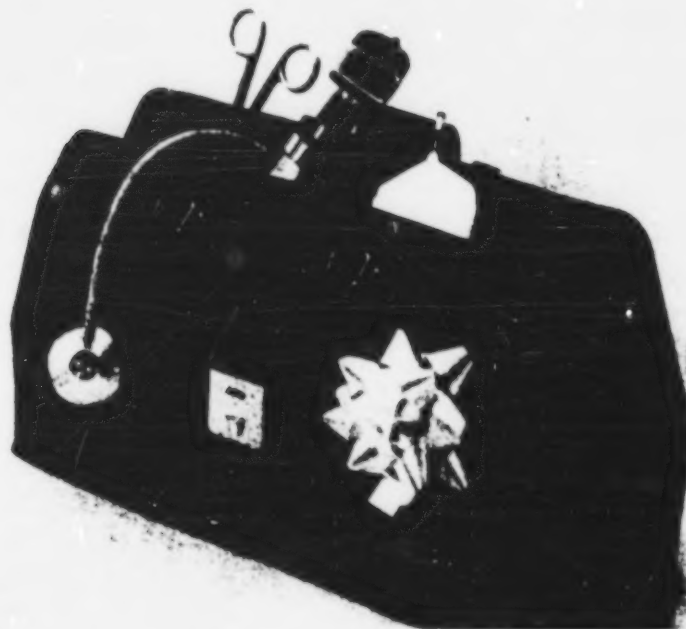
The model progressively reduces the role of women to that of a reproductive

machine. Each woman is assigned a specific function on the "assembly line". Some are chosen for the quality of their eggs, others for their ability to bear children. The case of the woman who had been dead 61 days but was kept functioning artificially so the fetus could reach maturity is perhaps symbolic of the tendency to treat women as matter.

#### The woman's health and the man's role

Solutions favored by science and medicine to cope with problems of fertility, contraception and sterility subject women to most of the risks and disadvantages. The pain that's part of certain tests, the side effects of general anesthesia, the exhaustion and tension of the long investigational phase, the risk of spontaneous abortion, the anguish of waiting for results — all are part of the reality the media and medical literature rarely mention, the reality women experience. The technique seeks to resolve a problem of fertility, but it's the woman much more than the man who must suffer most of the consequences, even to the point of endangering her health.

Techniques seen as a challenge to the man's role, such as artificial insemination with a donor, appear to elicit a more reserved response than those which offer the man the certainty of biological paternity, such as in vitro fertilization which has won rapid acceptance. ■



When a couple is afflicted with infertility, medical resources frequently offer the only solution.

## How medical power limits free choice

Development of new reproductive technologies is in perfect continuity with the evolution of medical power ever since the specializations of gynecology and obstetrics came into being, eliminating midwives in the past century.

Centralization of deliveries in hospitals, frequent recourse to examinations and a tendency to assume labor will involve complications have cost women a major part of their power and autonomy in maternity. They have become more and more dependent on medical knowhow and technology.

For the time being, artificial reproduction and prenatal diagnosis are practised on a selective basis. But such techniques could be applied in future to a growing number of pregnancies, becoming tools of reproduction management rather than instruments of prevention and therapy. Little by little, certain operations may be viewed as a necessity. Infertile couples and women may discover they have no other choice.

### At the outset of pregnancy

The advent of prenatal diagnostic techniques, fetal therapies and genetic manipulation has increased and rendered more complex the decisions that have to be made. In the future, when pregnancy occurs, the decision as to whether to go through with it may no longer be based on the desire to have a child, but on the desire to have a child of a certain sex, a certain appearance and a certain genetic type.

The risk is that choice will be strongly influenced, not to say controlled, by doctors. Genetic counselling is being presented nowadays as the new expertise of the medical profession. It could provide

another means to challenge or restrain the pregnant woman's freedom of choice. According to Genoveffa Corea, embryo selection could be imposed eventually on some or even all pregnant women. It is an area of medicine that is rapidly developing. ■

While inadequate budgets are allotted for prevention of infertility or research into its causes, for birth control, improved perinatal services and assistance to pregnant women, impressive sums are being spent for development of artificial reproduction.

Certain women authors suggest the little interest shown for prevention may provide a clue to the motivations of those who favor new reproductive technologies. Some problems could be avoided, they say, if efforts were made to improve the qual-



Clare Dufour

## Prevention:

## what medicine fails to do

ity of the environment and reduce the progression of sexually-transmitted diseases. Yet governments and the medical world pay little attention to the causes. That indicates, say these authors, that the desire to combat infertility may not be the principal reason for development of new reproductive technologies.

### ...and what it does foster

Other female authors point out some fertility problems are associated with the use of drugs and oral contraceptives, but health professionals either fail to mention the risks or minimize them.

Abusive recourse to caesareans, inadequate precautions during abortions and insertion of intra-uterine devices are frequently identified as factors which contribute to the increase in pelvic infections and damage the reproductive system. ■

## As those who tried see it

**W**ho but the woman who sought help to have a child would be better qualified to express her feelings on the solution of the medical profession and on the relationship with her doctor? Thirty-two women were asked to tell their story in their own words.

### Somewhere between faith and criticism

These women see medical treatment in a fertility clinic as the only possible solution.

"I think we knocked at the right door. And I still feel no one could do more."

They may be highly critical of the medical system, but they are also convinced it's the only source of possible help.

"I didn't see it as hope, but as help. I couldn't have done it alone. I said to myself, 'if spiritual, medical or any other assistance can do the trick, so much the better'."

They are conscious of the fact they have no choice. They can either forget about pregnancy or check into a fertility clinic.

"We have to depend on doctors for a solution. We don't have any choice. If it's rest I need, then I'm going to rest. If I have to stay in bed, then that's what I'll do. I'm always waiting for the doctor to come up with a solution. I have no choice. I try to keep informed. I read, but I don't have any answers other than theirs."

Some place all their trust in doctors or in medical science

generally, particularly women who have just begun the treatment or those who cannot imagine life without a child. The specific causes of their infertility have been identified. They are relieved that someone is taking matters in hand, that they won't have to carry the entire burden.

It can be reassuring when treatment is suggested.

"It's like a light at the end of the tunnel... When he told me there was a solution, I was very confident. It was good to hear that pills would take care of everything. I'm encouraged because they've found an answer to my problem."

« I didn't see it as hope, but as help. I couldn't have done it alone"

As treatment gets under way, a woman may say, "There's nothing they can't do." Another, who has been under treatment for some time, may add:

"They always find a solution. I'm the one who let myself get discouraged."

One woman who tried IVF says it's not a matter of leav-



*When infertility is in the picture, life — that of the couple as well as social and professional life — seems to change.*

ing it up to the doctors, but rather of having confidence in medical science and perhaps of hoping to make a contribution.

"I said to myself, 'we're in 1986, not in 1950'. You can't say no to the telephone. You can't say no to science, to what's going forward... And I have the feeling I can be useful, that I can contribute something. That's important to me. I have a sister-in-law who's infertile and a sister... It's rough on me, perhaps it will be less complicated for them if other people lend themselves to the experience."

Not all are strong supporters of what the medical system proposes. A woman who has had a child as a result of the treatment obviously has every reason to believe in medicine. But even such women have reservations, particularly with respect to the unpleasant treatments and the exacting nature of the medical process.

"I'd never encourage anyone to go to the clinic. I'd tell them about it, but that's all... I wouldn't send my worst enemy there... You have to be tough on yourself."

Five of the 32 women refused to submit to certain examinations or operations.

"They wanted to do another laparoscopy. I said, 'No, it's too rough'."

"In my opinion, they make you take too many drugs."

Three women were particularly critical of the services proposed or given at the clinic. They would have liked to have a say in orientation of the treatment.

"I say, we're our best doctors. It's our responsibility, too. But they do all the talking and we do all the listening."

They want to exercise more control over the process.

"I want to call the shots as I see it. I haven't taken my temperature curve for months now... I tell you, I want to be the skipper. Two skippers aboard is one too many."

Fertility clinics don't have a monopoly on knowledge, some women say, adding clinics tend frequently to forget their expertise is limited.

"As far as I'm concerned, it's important to remain critical. After all, a clinic is a research centre."

In the case of a minority, criticism of the medical system goes beyond condemnation of objectionable practices. These women want more research into the causes of infertility, such as sexually-transmitted

diseases and certain methods of contraception. They emphasize the need for studies in areas that affect health and possibly fertility: nutrition, lifestyles, psychological conditions, etc. They think more attention ought to be paid to alternative medicine, that simple techniques like insemination with the husband's sperm should not be strictly medical procedures. In a word, when women criticize the medical system, it's because they are aware of its limitations. ■



Judging by the opinions of these women, medical assistance given in fertility clinics is an extension of the traditional inequality in doctor-patient relationships. Some women are highly critical of doctors' attitudes.

"It's a relationship in which you're dominated. I don't feel he allows me free choice."

Most of the women mentioned aspects of their experience at the clinic which illustrate their dependence on and their submissiveness towards a system of care that is basically indifferent to their needs and to the effect the treatment might have on them.

Of course some had a good relationship with their doctor and were grateful for the treatment dispensed at the clinic. Generally, however, such comments concerned a specific doctor or nurse who had been willing to listen, who had shown empathy and had been accessible. The general climate at the clinic never prompted favorable comment. When women submit to the painful process of medical assistance, it is certainly not because they find the environment at the clinic particularly agreeable.

#### An impersonal matter

Many women felt they were treated as mere numbers

at the fertility clinic. In the first place, it's difficult to develop a continuous and personalized relationship with the attending doctor. As one woman said, "When you're being treated for infertility, you'd better be prepared to see several doctors." At the clinic, staff doctors succeed one another for consultation. Often consultations are handled by residents or interns.

"It's always the residents you see... Sometimes months go by and you don't see the doctor who's in charge of your case... And since they don't know you, they keep asking the same questions over and over again."

When women do see their doctor, he's in a hurry, pressed for time, and they hardly have the time to talk with him.

"You see him for two or three minutes. If you have something to say, you'd better say it quickly."

Doctors who manage to communicate, even though interviews may be brief, are highly regarded by patients. Some women get into the habit of refusing to consult a doctor other than their own — even if that means waiting longer for an appointment.

"When I go there, I always ask for the same doctor and only him. I don't want to see the others. I don't like them. He's sensitive."

« It's a relationship in which you're dominated. I don't feel he allows me free choice »

Even in an IVF program, a special case in that the woman is the object of much attention during the intensive fortnight of treatment, the relationship with the doctor apparently leaves much to be desired.

"What disturbs me is that doctors are always in a hurry. Like Dr. X this morning: 'Hello, hello. I'm the one who'll be operating on you tomorrow' (extraction of follicles). Then he was gone. There's really no contact between the doctor and the woman."

"It's never the same one. In my case, C measured my uterus, Y extracted the follicles and the next one may have been Q or Z. I don't know which."

Once her follicles were extracted, one woman couldn't reach her doctor for several days. Finally she was told by the nurse during a telephone conversation that the operation had been unsuccessful. But that is all she learned. Since the news was likely to be such a disappointment to her and her spouse, it seems incredible so little effort was made to communicate with her.

At the clinic, it was ultimately with the nurses the woman had a real contact. It probably explains why com-



Many women say communication is difficult and information inadequate at the fertility clinics.

ments on nurses generally are more favorable.

Some women feel the way the waiting room is laid out is a clue to little importance they have. They are critical of the

« I'm nervous inside. I sit there, glued to the chair, and wait. If he doesn't have much to say, I keep mum »

fact they have to wait for hours alongside pregnant women or women about to give birth, often with the nursery close by, when they're at the clinic precisely because they are unable to have children. However, it doesn't seem to bother all women; some like the idea of seeing newborns.

#### The lack of information

Women are also critical of the fact that the information they would like to have is hard to come by.

"They won't ask, 'Is there something you'd like to know?', is there something bothering

you? But if you ask a question, they'll answer you, usually in a nice way."

But unless a woman is insistent, lack of information can be a real problem.

"I'm nervous inside. I sit there, glued to the chair, and wait. If he doesn't have much to say, I keep mum."

Things are done, prescriptions given without anyone bothering to tell the women what it's all about.

"The other day, when I was there to undergo a second biopsy, the nurse called out my name. She gave me two pills, told me to take them in the bathroom. But she didn't tell me what they were. We're not animals, we want to know what they're giving us."

«They used every-day language. We understood a lot better»

In IVF cases, a greater effort is made to supply information. Patients get long explanations about the how of procedure, "but they never tell you why".

Yet so little is required to make women understand.

"There's a graph on the wall... 1st day, 2nd day, you know, something you can follow. It's interesting."

Some women claim they obtain more information on IVF from women who have had the treatment than from the staff at the clinic.

"They used every-day language. We understood a lot better."

Some women not only consider the information inadequate, but have the impression the clinic isn't really interested in making it available. Apparently it's not unusual for women to experience the typical situation in which the doctor refuses to explain on the grounds the patient won't understand, such information might have psychosomatic effects or might encourage erroneous selfdiagnosis.

"They're running the show and they know it all. It's as if



Women often have the impression they had better check their emotions in the cloakroom when they enter hospital.

we know nothing. The way I see it, it's more like veterinary medicine than anything else..."

"I had the feeling they were giving me the information so I'd do what I was told rather than suggesting, 'Here are the facts, you decide'. I had to find out for myself." ■



Except for those women whose doctor listened and was available, the others felt that, when they were admitted to hospital, they were expected to check their emotions in the cloakroom.

"In a hospital, you may get all the care you need, but no psychological support. They don't ask, 'Does it hurt?'. At first, I used to hate them."

The fact that the doctor rarely sees his patient and hardly knows her probably accounts to a large extent for the lack of interest in the psychological aspects of the search for fertility.

"In any case, we're only numbers. They don't remember who you are even if they pretend to. They have so many patients. The place is always full."

Despite the fact they get more attention than others, the women undergoing IVF treatment feel the same way.

"It was as if my feelings had no importance. What mattered was the result..."

Assembly-line IVF (several women going through the procedure simultaneously) underscores the impersonal nature of the doctor-patient relationship. Each woman is just one of many and interest isn't centered on the individual case but on the group because the objective is to achieve a certain rate of success.

What women would like to discuss with their doctors are the things that bother them. Both women who decide to seek medical assistance and those who are ambivalent about it have a need to discuss their situation, get advice on the advantages and disadvantages of possible solutions. Most doctors fail to perceive that need and concentrate solely on the objective of bringing about the pregnancy.

There are exceptions. Some women referred to an individual doctor, who showed he cared.

"I've rarely seen a doctor who's as sensitive... He was like a psychologist. You find yourself developing a bond."

"There was something else I asked of the doctor: support from others. You have the impression you're all alone. I know I'm not alone, but I don't like telling my life story to everyone."

It would be helpful if clinics and hospitals could assign a specific person to that function.

"...there must be a way. Perhaps they could find a clue by asking a few questions. Then they could set you straight. Of course the nurse who's doing post-coital or blood tests can't get involved in psychological extrapolation. But they could provide us with some help, give some direction... If there had been someone like that, I might have learned about guilt feelings. In spite of everything I had read, I knew nothing about such feelings. It's stupid."

#### The lack of thoughtfulness

Not only do doctors fail to provide psychological support, some are downright tactless.

«He said, 'Buy a lottery ticket, you're more likely to win the lottery than become pregnant'. I found that pretty rough on the phone.»

"They behave as if it doesn't matter either way... I wonder if they realize how important it is to us. I wonder if they ever put themselves in our shoes."

Some women have learned, whenever possible, to avoid consulting a doctor who's thoughtless, but not all dare express their reticence openly. The thoughtlessness is reflected at times in the physical contact — for example, the disregard for the anxiety and pain experienced by women during certain procedures.

What women really want from the clinic staff is a more humane attitude. Given the distressing nature of the experience, that doesn't seem too much to ask for. ■

## The powers that be

**P**owers as ancient as the world itself have already moved in on the field of artificial reproduction. Through the interplay of economic and political interests, notions of commerce, profit and social control have become part of the vocabulary of infertility and birth control.

## Economic interests: a new health industry

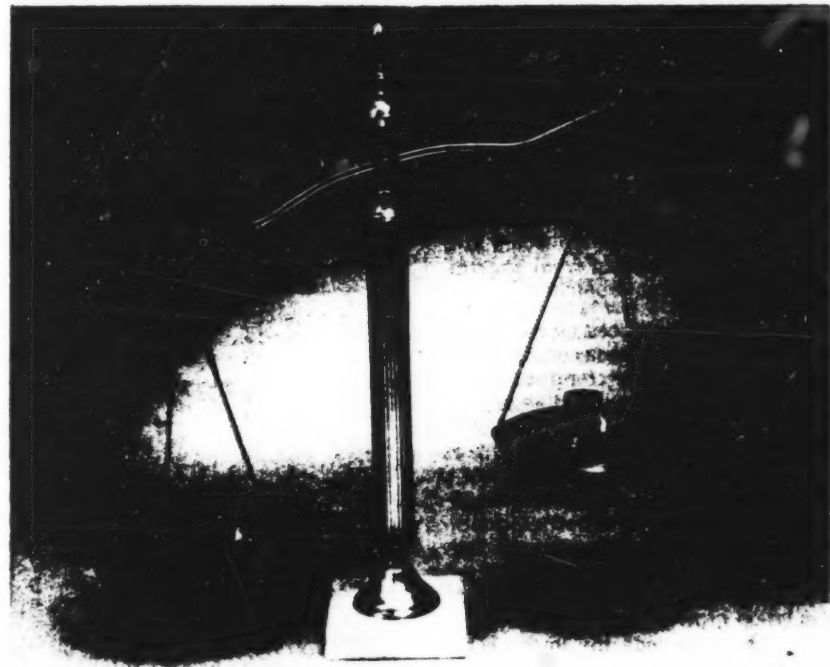
Little by little ovules have become precious, highly valued resources. Doctors have long had a tendency to proceed all too quickly with ablation of the uterus and healthy ovaries. But now ovules for research purposes or for artificial reproduction are in such demand that licit and illicit markets have come into being. Some doctors even resort to abusive practices, removing ovules without the full consent of the woman. Incidents of the sort were reported even when the initial teams were created to carry out IVF research in England and the United States.

On a long-term basis, growth of such industries could result in women's bodies being regarded as "natural resources" to be exploited and managed like so many others.

### The embryo commerce

Commercialization of animal embryos has been a reality for years. Commercialization of human embryos and fetal tissues began in the seventies. Women authors are convinced the objective of maximum production at the lowest pos-

sible cost will soon influence development in this area. They predict sterilization, now widely resorted to and often abused, will be increasingly practised among more



*A lot of money is devoted to development of new reproductive technologies while insufficient amounts are spent on prevention of infertility and the study of its causes, improvement of perinatal services and assistance for pregnant women.*

young women because of the availability of embryos and the development of the technique of embryo transfer. For women who work in a toxic or dangerous environment, for example, sterilization could

become a condition of employment.

### Payment for donations of ovules and sperm

In an effort to determine if the principle of remuneration is acceptable, a parallel is sometimes drawn between the donation of ovules and that of sperm. Some women authors maintain the donation of ovules, which implies a painful procedure that could endanger a woman's health, is more demanding and consequently of greater value. Yet they wonder if payment won't pave the way for exploitation of women in need.

### Surrogate mothers

The commerce of substitute mothers is another that has emerged with artificial reproduction: recruiting agencies, contracts, fee scales. Some authors believe underprivileged women are likely to be recruited in larger numbers for this type of "work" while the buyers will be middle-class and well-off couples.

American promoters reportedly have considered establishment of internation-

al networks so that women from poorer countries can be recruited at a lower cost, an arrangement that would "serve the interests" of both the women in question and couples from wealthier countries.

— Women's right to know —

### Prenatal diagnosis could be profitable

Economic arguments could carry a lot of weight with governments when calculating the cost of prenatal diagnosis. Elimination of a genetic anomaly or, more likely, abortion of the abnormal fetus at the stage of prenatal diagnosis could save society the cost of caring for physically and mentally handicapped persons. Cost-benefit studies have been made to determine the viability of systematic screening programs. ■

Few governments have yet established policies or adopted legislation concerning such research. In countries like England and Australia, the political climate would seem favorable to development of NRT; in the U.S., researchers are being more discreet so as not to alert public opinion.

Several feminist thinkers question the rights of scientists to pursue their search for knowledge as they themselves see it without impediment and without consideration of the social consequences. These authors point out that most scientists happen to be men. ■

### Political interests: NRT in government service

Several feminist authors believe non-medical factors may come to influence the practice of new reproductive technologies. The decision to resort to such techniques could depend on one's status: a white woman who is privileged, enjoys a "normal" family situation and shares the religious affiliation, nationality and sexual orientation of the majority would fare otherwise than a woman from a marginal, impoverished environment.

Were NRT practices governed by laws, regulations and codes of ethics, the latter would inevitably come to reflect political interests. NRT could be used to reinforce demographic control over a country. Governments could use NRT as an instrument of nationalism or as a means of curbing demographic growth. Research shows several countries have already adopted laws on abortion, sterilization and contraception. Penalties are imposed and incentives used to influence population growth. Countries could employ similar methods to "improve the genetic stock of the nation."

### Science's interests

Poor and coloured women have frequently served as guinea pigs for the testing of new contraceptives. One suspects the same phenomenon could occur with NRT, although mainly the more privileged stand to benefit from these techniques.



*In India, systematic abortion of fetuses of the female sex has already affected the demographic balance.*



## The dilemmas of NRT: keeping on top of the situation



Alpha Diffusion

### Pressures concerning the right to abortion

The question of women's right to free choice with respect to abortion has acquired a new dimension. Society in future could deny all responsibility in the case of a woman who, having been informed of a fetal anomaly during prenatal diagnosis, nevertheless decides to go ahead with the pregnancy and gives birth to a handicapped child. That could introduce an important new element of pressure on her. Yet the idea of selective abortion of abnormal fetuses has also been challenged. Handicapped activists believe the struggle for recognition of the rights of handicapped persons cannot be divorced from the larger struggle for the right to abortion. While some favor prenatal diagnosis, they stress the need for more information and greater support for women who must decide whether to have an abortion or assume responsibility for a handicapped child. They also believe dissemination of unbiased information on the subject of the handicapped would calm fears rooted in ignorance. Their viewpoint has not elicited unanimous approval.

### The threat to physical integrity

A number of women authors contend the multiplicity of diagnostic and therapeutic procedures may lead to more numerous violations of the physical integrity of pregnant women. Their rights, as opposed to the rights of the fetus, including that of refusing to undergo an examination or a medical procedure, could be called into question on the basis of the assumption that the fetus is a distinct being rather than an integral part of a woman's body.

## ● The threat to the reproductive function

Since recourse to artificial reproduction has become less difficult, it could serve as an argument for sterilization of women, even at a young age, as a drastic alternative method of contraception, a condition of employment in a dangerous industrial environment or a means of controlling costs related to the fertility of certain social groups (welfare recipients, the physically or mentally handicapped, ethnic minorities). Some authors raise the spectre of massive recourse to sterilization.

## ● Splintered motherhood

Human reproduction is in a state of profound transformation. With the advent of new technologies, maternity is now viewed as a series of distinctive functions (genetic mother, uterine mother, social mother), each of which medicine seeks to control in order to counter shortcomings of the "human machine" and achieve the best possible results at the lowest cost. That would further undermine maternal power and reduce the mother-child bond. In the process, the child would become a "product", a programmed consumer object, "normalized" and assembled "to measure", having a tenuous link with one or several mothers.

## ● Disturbing commercialization

The commercial aspect of reproduction (sale of ova and embryos, rental of wombs), say women authors, invites abuse, particularly that of underprivileged women. Substitute mothers, they add, are subjected to excessive controls and are relatively poorly paid. They enjoy little protection.

Stated simply, the "working conditions" are unacceptable, but many women in difficulty will have to accept such conditions just as they now accept underpaid jobs. Other authors see substitute motherhood as a threat to human dignity that goes beyond economic exploitation. They predict that commerce will evolve like sexual prostitution and give rise to an international traffic in embryos, women and children from Third World countries.

## ● Male power over reproduction

Development of artificial reproduction technologies is seen by some women as evidence of a male ambition to discover the secrets of the uterus and reach beyond the imperfect mechanism of human reproduction. In vitro fertilization specialists already assume part of the credit for the resulting births. Pessimistic women are convinced that, once complete artificial reproduction becomes possible, women will be reduced to mere sexual objects, at the limit even unnecessary.

Such projections may appear farfetched in the light of present reality. Yet threats to women's survival have already appeared on the horizon: methods used in the selection and predetermination of sex could lead, in the view of certain authors, to a substantial reduction in women's numbers, creating dismal conditions of life.

In India, systematic abortion of female fetuses is being practised on a large scale. It has already had an impact on the demographic balance, an effect some women authors define as "gynocide". ■

## Other avenues worth exploring



The dilemmas created by development of new reproductive technologies have inspired feminist authors to suggest exploration of other avenues:

- concentration of research on the causes of infertility;
- research and development of contraceptive methods that are less harmful, more efficient, reversible and inexpensive;
- adoption of social policies on reproduction which would enable women to recover control over that aspect of their lives and to exercise free choice concerning the use of new types of reproductive services;
- promotion of healthy pregnancy and births under optimal conditions, maternal leaves, assistance for parents and others providing care for children;
- recognition of abortion as a service rendered to women at their request and not because of pressure;
- withdrawal of all support for research that encourages or renders possible the choice of male offspring;
- a change of attitude in our relationship with children.

Women authors are demanding the right to unbiased information on NRT, respect for the physical integrity of women and reinforcement of women's right to use of their genetic potential. Some say specific areas of research in keeping with women's interests should be given priority. ■

# NRT is news

Scientific people, philosophers, feminists, journalists have all publicly expressed opinions and convictions on different aspects of the new reproductive technologies. Some books worth reading:

*La reproduction humaine industrialisée.* Jacques Dufresne. Québec, Éditions Diagnostic, Institut québécois de recherche sur la culture, 1986, 125 p.

*The Mother Machine: Reproductive Technologies from Artificial Insemination to Artificial Wombs.* Genoveffa Corea. New York, Harper and Row, 1985, 374 p.

*Maternité en mouvement — Les femmes, la reproduction et les Hommes de science,* a collective effort under the direction of Anne-Marie Vilaine, Laurence Gavarini and Michelle le Coadic. Grenoble, Presses universitaires, Montréal, Éditions Saint-Martin, 1986, 244 p.

*Test-Tube Women: What Future for Motherhood?* Rita Arditti, Renate Duelli Klein and Shelley Minden. Boston, Pandora Press, 1984, 482 p.

*Des motifs d'espérer? La procréation artificielle,* major interviews by Emmanuel Hirsh. Paris, Les Éditions du Cerf, 1986, 159 p.

*L'un est l'autre: des relations entre hommes et femmes,* Élisabeth Badinter. Paris, Éditions Odile Jacob, 1986, 361 p.

*De l'éprouvette au bébé spectacle,* Jacques Testart. Bruxelles, Éditions Complexe, 1984, 126 p.

*L'Oeuf transparent,* Jacques Testart. Paris, Flammarion, 1986, 203 p.

*L'enfant à tout prix — Essai sur la médicalisation du lien de filiation,* Geneviève Delaisi de Parceval. Paris, Éditions du Seuil, 1983, 282 p.

*L'enfant derrière la vitre,* Dominique Grange. Paris, Encre, 1985, 234 p.

*Les enfants de la science,* Robert Clarke. Paris, Stock, 1984, 275 p.

*Un acte d'amour — Nous avons fait porter notre enfant,* Guy and Monique Libaudière. Paris, Éditions de la Table Ronde, 1984, 319 p.

*L'insémination artificielle humaine: un nouveau mode de filiation,* Didier David and al., Paris, Éditions ESF, 1984, 151 p.

*L'insémination artificielle thérapeutique: aspects cliniques, psychologiques, juridiques, éthiques et philosophiques,* Jacques E. Rioux and al. Québec, Presses de l'Université Laval, 1983, 217 p.

*La rage de donner la vie,* Dr. Roland Dajoux. Paris, Encre, 1985, 228 p.

*Fertilisation en laboratoire d'ici à l'an 2000,* Simon C. Davis, coordinator, in collaboration with Marcel Melançon, Ronald Hamel, David J. Roy. Montréal, Les Éditions Bellarmin, 1981, 114 p.

*Actes du colloque "Génétique, procréation et droit",* Paris, Actes Sud, 1985, 569 p.

*Droit et science,* Monique Ouellet. Montréal, Les Éditions Thémis, 1986, 176 p.

*Du contrôle de la fécondité au contrôle des femmes,* Fédération du Québec pour le planning des naissances, Montréal, 1986, 7 p.

*Moral Dilemmas in Modern Medicine,* Michael Lockwood editor. Oxford, Oxford University Press, 1985, 259 p.

*The Technological Woman: Interfacing with Tomorrow,* Jan Zimmerman. New York, Praeger, 1983, 296 p.

*The Tentative Pregnancy: Prenatal Diagnosis and the Future of Motherhood,* Barbara Katz Rothman. New York, Viking Penguin Inc., 1986, 274 p.

*Test-Tube Babies: A Guide to Moral Questions, Present Techniques and Future Possibilities,* edited by William A. W. Walters and Peter Singer. Melbourne, Oxford University Press, 1984, 165 p.

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In publishing *Dilemmas*, the Conseil du statut de la femme would like to make an active contribution, that is both humanist and feminist, to the current debate surrounding new reproductive technologies.

In this brochure readers will find:

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